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ABSTRACT

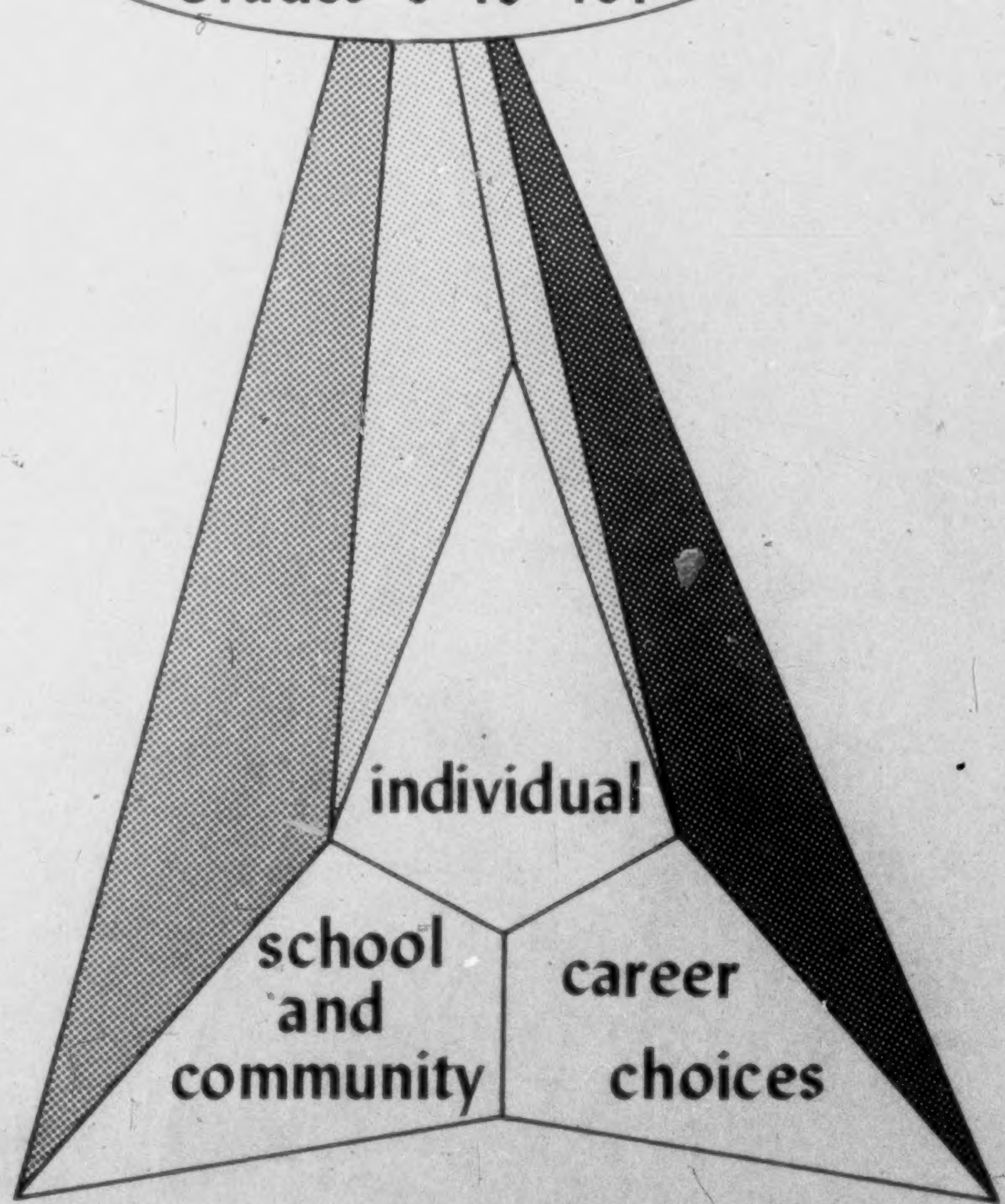
To develop an information system and model sampling for administrators of developmental career exploration programs in Grades 9 and 10, a series of summer workshops directed teachers, coordinators, and administrators to develop this curriculum guide for a student centered career education curriculum providing "hands-on" experiences. This preliminary project report describes a theoretical framework for career exploration, focusing on ten occupational clusters and six personal developmental areas. Developmental and behavioral objectives are correlated with student activities, while program objectives and methods of program implementation are detailed. Procedures for simulation activities in a variety of occupations are given, and a bibliography is included. Recommendations and implications of the workshops are presented, as well as a rationale for the career education continuum. A related document for Grades 7 and 8 is available as VT 016 019 (RIE, October 1972) and Grades K-6 as Ed 062 565. (AG)

OHIO'S CAREER CONTINUUM PROGRAM

ED 065729

CAREER EXPLORATION PROGRAM

Grades 9-10 for


individual
school and community
career choices

VT016266

STATE BOARD OF EDUCATION · OHIO

ED 065729

CAREER EXPLORATION PROGRAM

Curriculum Guide

A Workshop Report

A Project of the Educational Professions
Development Act and Vocational Education Act of 1968
OE Log No. 2510, Sub-Project Number 3
as contracted with:

Kent State University
Toledo University
University of Cincinnati

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by

Martin W. Essex
State Superintendent of Public Instruction
State of Ohio Department of Education
Vocational Education Division
Columbus, Ohio 43215

December, 1971

PREFACE

The teachings of our philosophers in education and the principles of learning gained from the psychological studies both point to interest and experience as basic essentials in the educational process. Vocational education has for years concerned itself with these two basic factors as we provide students with the skills, technical knowledge, work habits and attitudes to enter employment or further education upon completion of the vocational program.

The price of the technological age is preparation for employment, since the number of unskilled jobs is diminishing and persons find it difficult to maintain any standard of living in a low skill or unskilled occupation. Our educational system, however, has ignored the changing times, learning theory and psychological principles of learning in its pursuit of academic excellence through a subject-centered curriculum. Experiences in vocational education indicate that many youth arrive at age 16 with little knowledge about themselves or the world of work and have difficulty in making wise occupational choices in order to make best use of the educational services available to them.

The Vocational Education Amendments of 1968, growing out of the panel of consultants headed by Dr. Martin Essex, pointed towards the importance of a career development program that starts in kindergarten. The Division of Vocational Education in the state of Ohio accepted the challenge of that Act and has been working to develop a system of vocational education and guidance, starting with children in the kindergarten. This document is concerned with the exploration phase of that system, organized for youth age 14-15 to enable them to explore their interests and abilities in relation to occupations in the world of work.

Appreciation is expressed to the many vocational teachers, counselors, supervisors and administrators who invested their time and efforts to work on a difficult problem as we realize the goal of this effort is to provide an opportunity for exploration for all children. The goal is difficult to achieve, but its achievement is essential if we are to move the educational process into the technological age.

Respectfully submitted,

Byrl R. Shoemaker

Byrl R. Shoemaker
Director of Vocational Education

BACKGROUND TO PROJECT

The response of local personnel in attending four weeks this past summer a workshop to develop a state guideline for CAREER EXPLORATION PROGRAMS was outstanding and supports the need for information to be widely distributed in Ohio for curriculum change.

With the Vocational Education Amendments of 1968 and the Ohio Governor's Task Force on Vocational Education saying the same thing, it was quite obvious that we had to develop a change in curriculum in the K-10 program if the students were to make a wise choice in training for a career. A curriculum-based guidance program has to emerge rather than permitting counseling to continue on a hit or miss basis. Out of this need to develop a program, and specifically to develop the 9-10th grade program of CEP, came this project. The purposes of the project were to:

- bring together groups of local personnel to write a document that would become a guide for program operation,
- train this core group of persons to be local program developers when funds become available,
- institute recommendations for teacher education change that would automatically build CEP into teacher preparation.

With the K-10 continuum progressing from the "awareness" approach in K-6, and the "look-see" approach in the Career Orientation Program of grades 7-8, it is a logical step to move the learning system to "hands-on" in the Career Exploration Program at 9-10th grades. At this level there will be simulated exploration with multiple choices in various careers, whether training is offered at the high school or post high school level. The major outcome of this series of six workshops was to produce a guideline that can be used by all of the 9-10th grades in Ohio. VEA68 funds in the Educational Professional Development Act (EPDA) were used to support the operation of the workshops and the publications resulting from these activities. These funds helped education personnel defray their costs, provided the instructional personnel and consultants, and made it much easier to begin development of the Career program in Ohio.

It is hard for personnel to change horses in the middle of the stream. Moving from a discipline, subject-centered curriculum to a behavioral student-centered curriculum is hard to visualize. It is with respect that we accept this document and tentatively publish it as a guide, fully expecting many, many modifications and changes to come about through use in the existing funded CEP schools and through others as they plan ahead for activation. The written word has to start somewhere, so this is the first Ohio published (tentative) document to help local educational personnel establish and operate a Career Exploration Program.

We want to thank all of the persons, including Eldon Reiboldt, the director, for their participation in the workshops and their intuitive writing and ideas molded into this document. We apologize that all that was written could not be published, but as a guide, we just could not list everything. It is truly wonderful to see over 100 persons put down on paper their ideas around a central theme, discuss ways of operation, and come out with something to help all the other teachers and educators in Ohio. We appreciate everyone's effort and present the following document for your use. Use it in good faith and for the betterment of our educational system for your student, the present and future taxpayers of your communities.

R. D. Balthaser, Assistant Director
Vocational Education for
Business and Office Education and
Career Exploration Programs

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Department Director of EPDA Project 2510-3

10-5-71

FORWARD

CAREER DEVELOPMENT CONTINUUM

Our rapidly changing technology and the resultant manpower trends mandate a reassessment of existing secondary curriculum. Occupational areas which possess personnel shortages and present unemployment patterns, both focus clearly on the need for more realistic career choices on the part of youth and young adults. Career choices must be based on a systematic study of jobs and job families and knowledge of self in terms of interest, aptitude and ability.

The career development continuum was designed to meet the needs of youth and society. The continuum is based on the principle that all education should be relevant to the needs of students at the various educational levels. Additionally, the continuum provides for maximum curriculum articulation in grades K through 12. Career education transcends all courses and is based on the concept of an integrated program.

Curricular changes are a prevalent part of the educational history of this country. However, change has not always been synonymous with improvement. The career development continuum is perceived a curriculum innovation which can truly change the direction of education in Ohio, and in the nation. The primary purpose of the career development continuum is to increase student options in terms of occupational choices, life styles, and societal contributions.

We are indebted to the many individuals who have contributed to the concept and the materials for the career exploration phase of the career development continuum. We are further indebted to the State and Federal agencies, which provided the opportunity for the development of these materials.

Charles W. Nichols

Charles W. Nichols, Chairman
Department of Vocational Education
Kent State University

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Chapter I

Introduction to the Career Development Continuum

RATIONALE FOR THE CAREER DEVELOPMENT CONTINUUM

Man's wants and needs are unlimited. However, his resources for meeting those wants and needs are limited. Therefore, as he works to satisfy his wants and needs, he must organize his efforts as he changes natural resources into useful goods and services.

Natural resources are scarce and not usually in a form which will satisfy man's sophisticated wants and needs. Therefore, he must organize his work activities into an efficient system which will not waste his scarce natural resources. As this system is organized, specialized work and jobs are created and society becomes to some degree a technological society, with emphasis on producing and distributing goods and services to satisfy man's wants and needs.

This technological society advances as people are able to fill the job requirements of the various vocations. How well people fill the requirements will determine how the technological society develops in direction, quality, and rate. All in an effort to satisfy man's unlimited wants and needs.

A major determinent of how well man meets the job requirements of the vocations within a technological society is the type and quality of his educational readiness to fill the vocations--jobs. This means that he must be educated in the skills, technical knowledge, and attitudes required by those jobs in society.

Based on the belief that a free man should be able to select a vocation that he is best qualified for, he must learn who he is, what type of work he is capable of doing, and what type work will provide him the opportunity to live in dignity and yet meet his unlimited wants and needs, including his psychological needs.

The selection process for an individual to effectively choose a vocation must start with educational involvement in the following six areas:

(1) Self and Environment
(2) World of Work
(3) Education and Training
(4) Economics
(5) Employability and Work Adjustment Skills
(6) Decision Making

Each of these factors must be considered as they relate to occupations and adult life styles of that occupation. The student will evolve from the awareness level of each of the six areas, to the level of appreciation for the content within the areas, to that of experimenting with the job duties or activities in a particular vocation. After an individual has evolved through these three steps, they are then in a position to more realistically determine what work they want to do as a vocation. A vocation which will provide him with the necessary resources to purchase goods and services, to satisfy his wants and needs and allow him to live in dignity, both materially and psychologically. The educational goals and needs influence and are influenced by each of the goals and needs cited above. Because of this unique role and the significance of education in man's fulfillment, education stands squarely between man and his work.

This rationale is converted into a theoretical framework based on learning principles and curriculum development. A written and pictoral description follows.

DESCRIPTION OF THE OHIO CAREER DEVELOPMENT CONTINUUM

The Career Development Continuum is an emerging concept in Ohio. The long range educational implications of this concept necessitate a clear description of the concept and program as used in the State of Ohio.

Career Development Continuum

Proponents of a career development concept believe that a major responsibility of an educational system is to increase individual options of students so that they will be an employable and well adjusted citizen in their community. A basic tenet of this concept is that people must perform some part of the world of work and this requires behavior adjustments. Otherwise, they become a liability to their community and in conflict with their society and themselves because they will be unemployed or on welfare. A Career Development Program thus becomes an educational program for all people.

In the Career Development Continuum, five separate time spans have been identified. Each time span has a unique educational program designed for students at that level. The five time spans and the corresponding career education program or programs are as follows:

Time Span (grade level)	Career Education Program
Kindergarten - 6th grade	Career Motivation
7th and 8th grade	Career Orientation
9th and 10th grade	Career Exploration
11th and 12th grade	Vocational Education and/or Pre-Professional Careers
Post Secondary	Technical Education Adult Education Higher Education

The career education concept also recognizes that special educational programs are needed for disadvantaged and handicapped students to meet their vocational needs. These programs may cut across all grade levels and move on into post high school areas of training.

Career Motivation

This career education program is for kindergarten through 6th grade students. Students develop an awareness that people do work and that one's occupation is an important part of life. Students are also motivated to want to perform some part of the world of work.

The objectives of this program are as follows:

1. To make all youth aware of work
2. To develop in all youth respect for work
3. To motivate all youth to want to take their place in the world of work as productive members of the labor force

Career Orientation

This is a career education program for 7th and 8th grade students. Students develop a knowledge and attitude about jobs, self, and society. This program is a middle ground between the development of positive motivation about work (Career Motivation) and decisions about jobs (Career Exploration).

Career Exploration

This is a career education program for 9th and 10th grade students. Students will be involved in specific experiences that relate to jobs. This program is unlike the other two career education programs, Career Motivation and Career Orientation, in that it emphasizes decision making about careers through experiences instead of being limited to developing attitudes and knowledge about work.

The Career Exploration Program goes one step further in the guidance function in that it extends beyond testing, brochures, and college choice. It adds experiences which help students to make decisions about what type of work students will do when they become adults.

The Career Education Program provides a logical base upon which subsequent educational preparation on the 11th and 12th grade levels can build as well as post-secondary educational experiences and actual employment.

Vocational Education

This program equips persons for useful employment. It gives definite purpose and meaning to education by relating to occcupational goals; by providing the technical knowledge and work skills necessary for employment; by contributing to the general education needs of its students; and by its uniqueness of not being a discipline, but by cutting across and drawing from a number of disciplines and from the practical work of the world in the occupations in agriculture, business and office, homemaking, distribution, trade and industrial fields requiring less than a college degree.

Occupational Work Adjustment (O.W.A.)

This program is designed for 14 and 15 year old students who are disenchanted with the educational system and the way in which they relate to that system. This program is designed to provide an opportunity for each individual to develop appropriate positive attitudes toward self, toward learning, and toward work. These students are involved in work experiences in the school environment and in private industry. There is no emphasis on manipulative skill development.

Occupational Labs

This program is a short term effort to teach single skilled and semi-skilled occupations in an in-school setting. These students have a low expectancy for completing high school. Because of the short term nature of the program, no concerted effort is made to develop additional skills in arithmetic, reading and writing.

Occupational Work Experience (O.W.E.)

This program is designed for students who are 16 years old and older. These students are likely to drop-out of school without a basic skill for employability. While in this program, students learn basic skills, develop better attitudes and enhance their skills in arithmetic, reading, writing, and decision making in addition to the development of single skills and semi-skills.

Pre-Professional Program

A high school program preceeding entrance into a college curriculum organized on a potential career base.

Technical Education

Technical Education is a level of education planned to prepare para-professional persons in two-year post-high school programs to support the prefessional people in engineering, business, agriculture, distribution, health, social science, and public service occupations. It is primarily concerned with design, development, testing, supervision, and mid-management functions without replacing the professional by enabling him to work at his highest level of education while providing the coordinative and interpretive functions of the technician between the professional and the skilled worker.

College

A post high school educational program which leads to a baccalaureate degree beyond a high school diploma.

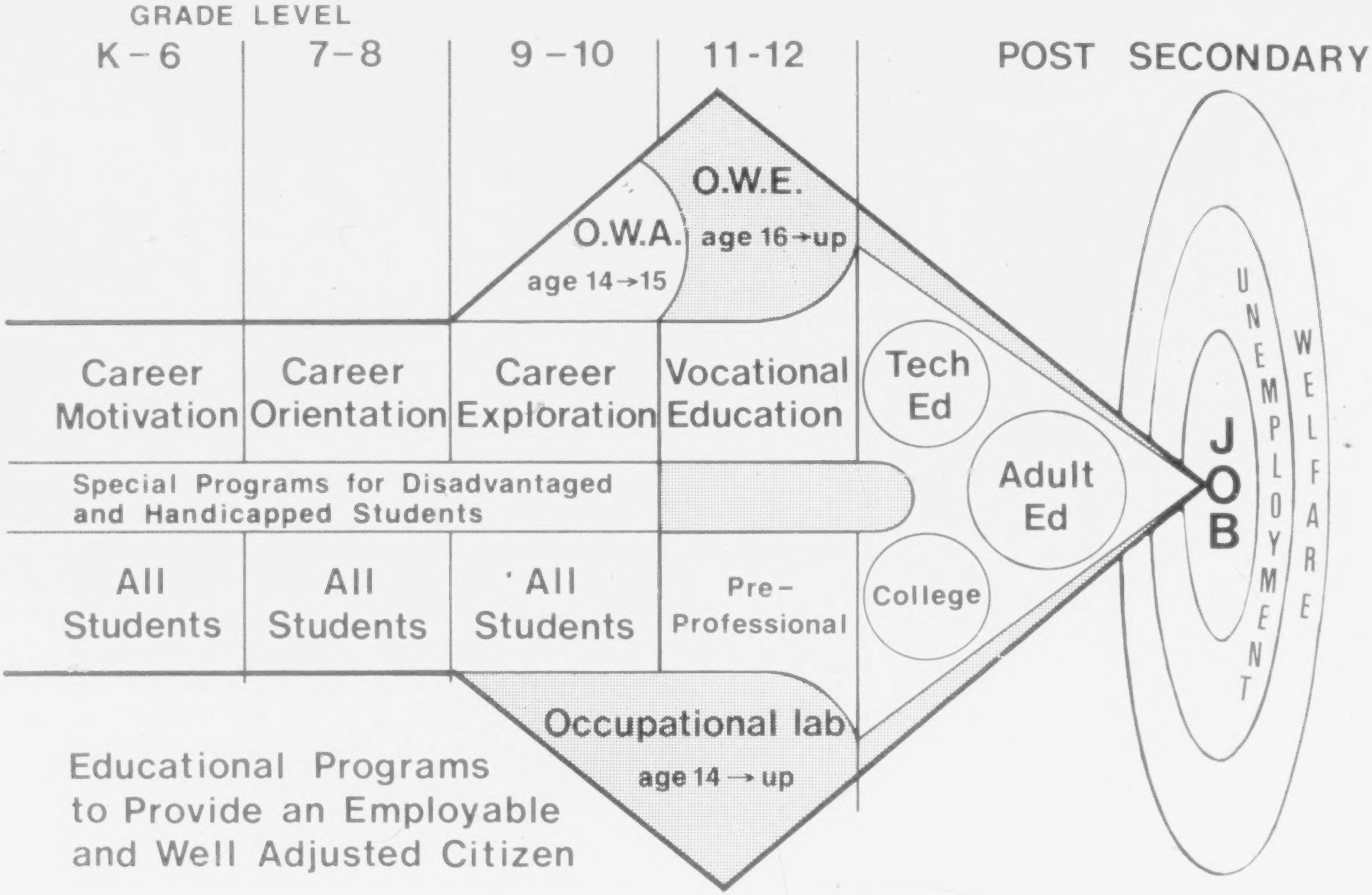
These concepts are summarized visually on page
This is an attempt to portray the interrelated, program aspects of the total continuum.

Adult Education

An educational program for out of school youth and adults, which is designed to: (1) upgrade existing skills and knowledge, (2) teach new skills or knowledge resulting from technological change, or (3) provide instruction for a vocational or personal use.

OHIO STATE DEPARTMENT OF EDUCATION · DIVISION OF VOCATIONAL EDUCATION

OHIO'S CAREER DEVELOPMENT CONTINUUM


GRADE LEVEL
K-6
7-8
9-10
11-12
POST SECONDARY
O.W.A.
age 14→15
O.W.E.
age 16→up
Career Motivation
Career Orientation
Career Exploration
Vocational Education
Special Programs for Disadvantaged and Handicapped Students
All Students
All Students
All Students
Pre-Professional
Occupational lab
age 14 → up
Tech Ed
Adult Ed
College
JOB
UNEMPLOYMENT
WELFARE

Educational Programs
to Provide an Employable
and Well Adjusted Citizen

CAREER EDUCATION IN OHIO

Career education is defined as a program which endeavors, through the regular curriculum, to provide all youth in the school with motivation toward the world of work orientation to the many job opportunites available and exploration of occupations consistent with individual interests and abilities which help youth benefit from and plan for pre-professional instruction or vocational education. The career education program also provides pre-professional instruction leading to further education, vocational education leading to successful entry and advancement in an occupation of personal choice, and training, retraining and upgrading instruction throughout an individual's work life which is consistent with the technology of the world of work and the individual interests and the needs of out-of-school youth and adults.

The successful career education program combines the efforts of the home and the school to prepare youth for successful entry into the world of work. The school integrates the career motivation, orientation and exploration program with the regular curriculum and includes a strong family life program to develop the positive influence of the home to its fullest protential.

A total career education program consists of the following phases:

1. A total *Family Life Program* within the school curriculum with special emphasis for disadvantaged people to help improve the care and motivation of pre-school children and assure a more positive impact of the home on the needs of school age youth.

2. A *Career Motivation Program* for all youth in kindergarten through Grade six which develops a positive attitude toward the world of work, inspires respect for all work and creates a desire to be a part of the world of work.

3. A *Career Orientation Program* in Grades seven and eight which provides all youth the opportunity to become aware of the many occupations open to those who prepare for them.

4. A *Career Exploration Program* in Grades nine and ten, or age fourteen and fifteen, which provides all youth with the opportunity to examine and gain firsthand experiences with several career opportunities consistent with individual interests and ability.

5. A *Career Preparation Program* for youth age sixteen and above which includes:

    A. a comprehensive vocational education program which provides job skills and technical knowledge and develops work habits and attitudes in preparation for employment and

    B. a comprehensive pre-professional education program which provides knowledge and foundations in preparation for professional education beyond high school.

6. A *Career Training, Retraining and Upgrading Program* for out-of-school youth and adults which provides the opportunity throughout adulthood to train, retrain and upgrade skills as technology changes and societal and individual needs and desires dictate.

SUMMARY OF THE CAREER DEVELOPMENT CONTINUUM

Employment is vital to the physical, psychological, emotional and economic well being of man. Preparation for employment thus becomes a vital part of mans education. Education as a social tool stands unalterably between man and his vocation. This nation can ill afford inferior development of our human resources. If education, in our time, is to be relevant and responsive to the present and future needs of each man, it must provide appropriate information about mans skills, abilities, interests, and aptitudes. Additionally, man must have information about jobs; job requirements, job duties, job opportunities, and job preparation. Knowledge of self and knowledge of careers will provide the basis for a more realistic occupational choice. Education must also provide adequate skills, technical knowledge, work habits, and attitudes to enable man to enter and make progress in an occupation of his choice.

The career development continuum is an instrument to initiate major curricular changes in our contemporary public schools. Such changes demand a more integrated approach to the education of the whole child. It is essential that all members of the education profession cooperate in a team effort to provide a truly student centered curriculum. A key element in such an innovative curriculum is the articulation of the various phases of the total educational program. A tangible, identifiable relationship must exist between each phase. Educational history verifies the fact that curricular innovations in American education have failed for the lack of articulation.

Additional key elements relative to effective career education are (1) a pragmatic approach to curriculum development, (2) preparation of relevant resource materials, and (3) dynamic, practical teaching that will realistically meet the needs of contemporary youth. Experience indicates that students will identify with and respond to instruction which is based on reality. Additionally, most students fail to respond to instruction which they consider overly theoretical. All phases of a career education continuum must be concerned with the practical application of the fundamental principles of learning appropriate for the age group involved. A program of career education must be prepared to accept all youngsters at their level and "tell it like it is."

The primary purpose of this document is to provide background information and materials for the Work Exploration phase of the Career Development Continuum. The Work Exploration phase is a significant element of the total continuum because it represents the capstone experience prior to the individual establishing a more specific career direction. Chapter II is concerned with a description of the Career Exploration framework.

Chapter II

Description of a Framework
for
Career Exploration and Evaluation

DESCRIPTION OF A THEORETICAL FRAMEWORK FOR CAREER EXPLORATION AND EVALUATION

Several theoretical Career Education frameworks have been designed to provide direction for the creation of Career Education programs of Career Motivation (K-6); Career Orientation (7-8); or Career Exploration (9-10) which is the concern of this handbook. One design is that of Dr. Frank E. Wellman, University of Missouri. However, this design appears to be complicated; hence, it is frightening to people who do not spend their days in the world of theory.

Dr. Joseph Quaranta, Professor of Education at Ohio State University, has modified Wellman's framework and presents a design which does not look frightening, yet accomplished everything that Wellman's design does. It is important to note that Dr. Quaranta has been working in the Ohio Career Motivation Program (K-6) and has made significant contributions to the total program of Career Education. We are indebted to Dr. Quaranta for providing a theoretical framework which served as a focal point for the Career Exploration workshops.

Page 4 is an overall flow chart which shows, in general, what a Career Education Program should be doing. In the instance of this handbook we are concerned primarily with the Career Exploration Program for grades 9 and 10. A RATIONALE is necessary, for our purposes which states that people work. Education then has the responsibility for helping people develop, guide, and grow into society as a healthy, well adjusted working person.

People have NEEDS and GOALS. These two are closely related and will be combined for the purposes of this writing. There are personal-social goals and needs which relate to a person in his society and what he wants to do in that society. There are also vocational goals and needs for each individual. Vocational, in this instance, simply means one work--job. Therefore, people have a job or work of some type as a goal and a need. People also have educational goals and needs. Consequently, many educators say that education stands between the man and the job.

Career Education programs must be based on a rationale and a group of needs and goals as they relate to the development of the total child. These programs benefit from the information gained from psychological studies of the developmental stages of youth. In Career Exploration we are concerned with the normative developmental behavior of a fourteen or fifteen year old child. Consequently, it is normal to expect a child of this age to begin exploring his abilities, aptitudes, and interests as they relate to work. We expect them to make some decisions about themselves and what they will do during life. The Career Exploration Program must aid each child in his exploration by identifying areas of development and exploration and then prescribe what activities are likely to bring him exploratory experiences which will aid him in fulfilling his goals and needs.

Educators can help the child through Career Education programs. This starts by stating DEVELOPMENTAL OBJECTIVES and modifying these objectives into BEHAVIORAL OBJECTIVES. If these objectives are well written, a good Career Exploration Program for the INDIVIDUAL will be accomplished, in part--not total. Developmental Activities still need to be accomplished and the Career Exploration Program needs to be activated and controlled.

We learn and we explore through activities which are experiences. Therefore, the Career Exploration Program must provide activities which act out the behavioral objective requirements. These activities normally flow through vicarious experiences (reading, watching films, field trips, listening to speakers, etc.) into simulated experiences (a replication of unadulterated experiences but in a controlled environment) through hands-on experiences (living through real experiences which are not controlled in an unnatural environment).

After the student has been led through these prescribed experiences, he needs to conduct an evaluation to determine the progress towards fulfilling his goals and needs. If this progress has been unsuccessful, new developmental and behavioral objectives must be created and the individual goes through a different set of experiences. This cycle repeats as often as necessary until the objectives are achieved.

A very brief description of a program for individual student development has been described above. However, since there is a program, it must be administered and supervised. Consequently, PROGRAM OBJECTIVES must be stated to give direction. Plans must be made for PROGRAM IMPLEMENTATION of activities for students. The whole program must go through an evaluation, just as the student needs to go through an evaluation, until the program responds to the students' needs.

You will notice that on page 6 of the framework is a column to the left side titled DEVELOPMENTAL OBJECTIVES. Under that column are six personal developmental areas for which developmental and behavioral objectives must be written. (WRITING ACTIVITIES FOR THESE AREAS WAS A PRIMARY OBJECTIVE OF THE SUMMER WORKSHOPS.)

Page 6 is useful to the extent that it shows that developmental objectives flow into Behavioral Objectives which in turn flow into activities. Program objectives flow into program implementations which tell what administrative steps must be taken to provide activities as prescribed by the behavioral objectives. It must not be forgotten that there are three levels of activities: vicarious, simulated, and hands-on experiences. The point of emphasis is that the three levels of activities are options and not always a sequence to be followed.

Page 7 is intended to be a continuum which expresses what could be statements at the poles of the continuum--the Career Motivation Program (K-6) and the Career Exploration Program (9-10)--that relate to developmental objectives, behavioral objectives, program objectives, program implementation, and activities.

ADDITIONAL DEFINITIONS USED IN THIS REPORT:

In the interest of clarity, the definition of key words or abbreviations is presented at this point. The use of these terms throughout the remainder of this report will be based on the definitions presented in this section.

OCCUPATIONAL AREAS - Career Exploration based on the study of related jobs.

C.E.P. - An abbreviation for Career Exploration Program.

HAND-ON - Educational experiences in an occupation as found in a natural state.

PROGRAM - A sequence of planned experiences which are goal oriented.

O.O.H. - An abbreviation for Occupational Outlook Handbook.

O.V.I.S. - An abbreviation for Ohio Vocational Interest Survey.

G.A.T.B. - An abbreviation for General Aptitude Test Battery.

D.O.T. - An abbreviation for Dictionary of Occupational Titles.

VICARIOUS LEVEL - Describes those activities in which the student is involved on a level excluding any form of "hands-on" experiences. Materials would include tests and other books, films and filmstrips, tapes and recordings, pamphlets and the like.

SIMULATED LEVEL - Describes those activities in which the student experiences some "hand-on" work but on a less-than-real-life basis. This level would utilize such materials and equipment as mock-ups and miniaturized machinery, job simulation kits,etc., which are similar to but not actual industrial or business types.

EXPERIMENTAL LEVEL - Describes those activities in which the student is involved in "real-life" experiences in a "hand-on" manner. This level would need to utilize extensively, the resources of the community. Materials and equipment would be the actual ones used in business and industry, both within the schools as in trade shops and in the community as in existing factories, offices and the like.

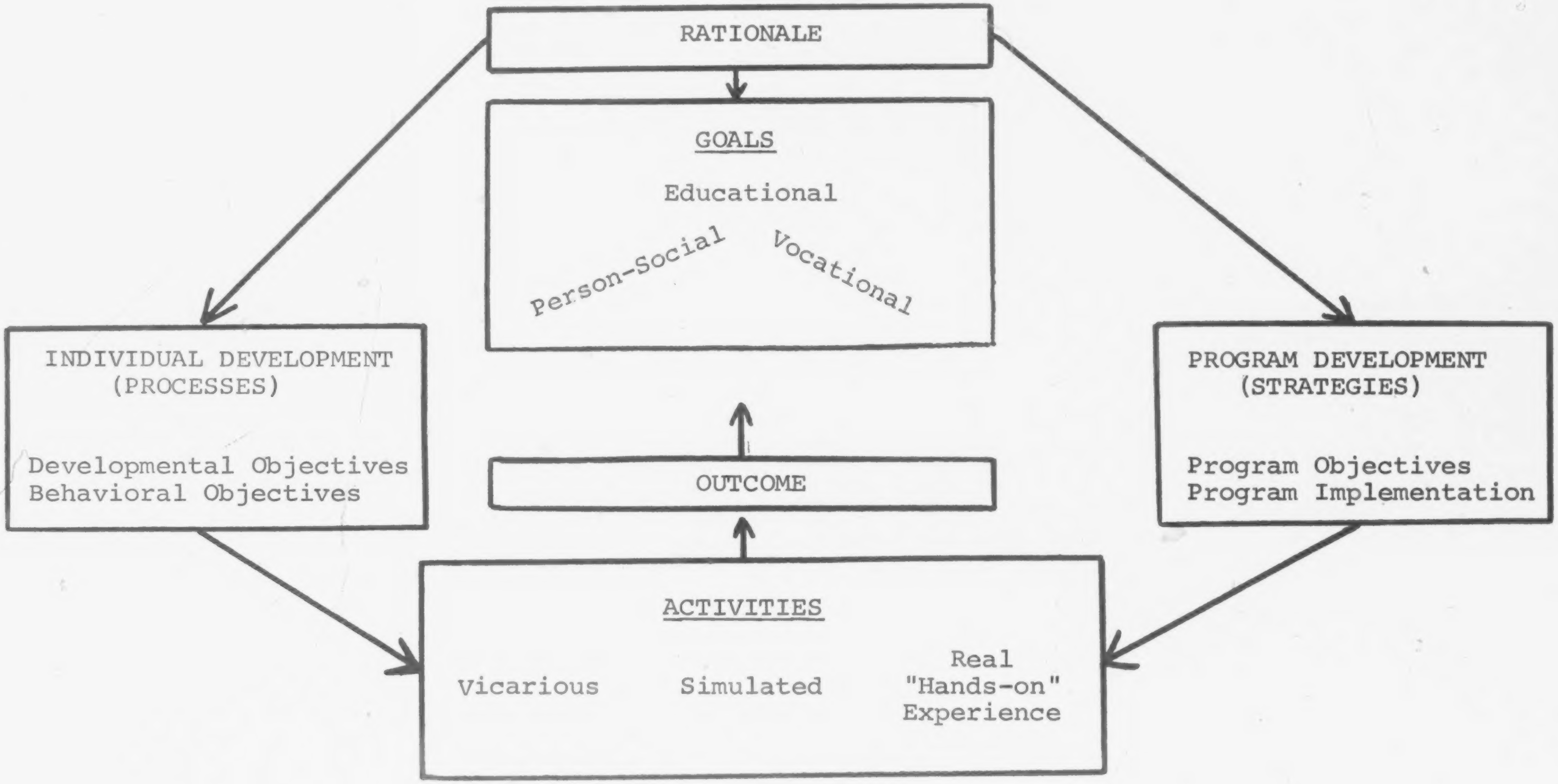
BEHAVIORAL OBJECTIVES - An objective that states what type of student performance will be expected at the end of instruction. Behavioral objectives must contain the following three elements:

1) Behavior - refers to any visible activity displayed by a learner.

2) Terminal behavior - refers to the behavior you would like your learner to be able to demonstrate at the time your influence over him ends.

3) Criterion - is a standard or test by which terminal behavior is evaluated.

A THEORETICAL FRAMEWORK FOR CAREER EXPLORATION PROGRAM DEVELOPMENT AND EVALUATION


RATIONALE
GOALS
Educational
Person-Social
Vocational
INDIVIDUAL DEVELOPMENT
(PROCESSES)
Developmental Objectives
Behavioral Objectives
OUTCOME
PROGRAM DEVELOPMENT
(STRATEGIES)
Program Objectives
Program Implementation
ACTIVITIES
Vicarious
Simulated
Real
"Hands-on"
Experience

By: Dr. Joseph Quaranta
Ohio State University

FOR WORKING PURPOSES, THE "FLOW" CAN BE RECORDED ON A WORKSHEET LIKE THIS:

THE INDIVIDUAL		THE PROGRAM		
DEVELOPMENTAL OBJECTIVES	BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION	PROGRAM OBJECTIVES
Developmental Objectives flow into refined Behavioral Objectives.	Behavioral Objectives flow into Activities.	This is where individual student plans and programs meet to provide experiences to help students make wise vocational choices. These experiences are: 1. Vicarious 2. Simulated 3. Hands-on Experiences	Program Implementation flows into Activities.	Program Objectives flow into Program Implementation.

The Career Exploration Program is established on an objective base, the six areas of student development are listed in Column 1 below.

INDIVIDUAL		PROGRAM		
DEVELOPMENTAL OBJECTIVES	BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION	PROGRAM OBJECTIVES
Logical step sequence of what a student must do to achieve his goals and needs in the following 6 areas: 1. Self & Environment 2. World of Work 3. Education & Training 4. Economics 5. Employability & Work Adjustment Skills 6. Decision Making ....within the 9th and 10th grade curriculum.	These objectives are a refined pattern of the student's developmental objectives. They should be listed in 3 areas: Ideational (vicarious) Situational (simulation) Material (experience) These objectives state the knowledge, skills, and performance that is expected of the student.	These activities are the things that the student must do to act out the behavioral objectives. These activities will be in the following sequence: 1. Vicarious 2. Simulation 3. Hand-on Experience	These statements are a refined pattern that will tell the program administrator what administrative steps must be taken for providing the activities that will actualize the following types of experiences: 1. Vicarious 2. Simulation 3. Hands-on Experience ....as prescribed in the behavioral objectives column.	These objectives are a broad generalization that state what the purpose of the total program is. They are "umbrella" statements for all students in the 9th and 10th grade Career Exploration Program. These statements closely parallel, in broadest terms, the statements in the developmental objectives column.

SIX PERSONAL DEVELOPMENTAL AREAS

Within the theoretical framework, upon which CEP is designed, and found throughout the continuum of Career Education Programs in Ohio, are the basic six personal developmental areas identified by Wigtil and McCormick.[1] The six developmental areas are applicable to all phases of human behavior, but in this program are geared to the development of 14-15 year old youths. A brief description of each of the six personal developmental areas is in order at this point.

Self and Environment

In this area of the student's development, the student must determine who he is and how he relates to his environment. He must be involved in experiences which will help him to determine his relative abilities to work with people, to manipulate tools, to sense his presence in his environment, and to comprehend laws of nature and the processes for behavioral advancements within his community.

The student will be involved with understanding his interests, aptitudes, achievements, temperament, his family, peers, his society, and etc.

Economics

Students must learn to see themselves as a productive worker unit who supports his community through efficient positive efforts as a producer and consumer. He must learn that the money he receives for his work is an important factor in determining the behavior of his community through the way in which he spends his money; the way in which he is willing to work for his money; and how this spending gives direction to the use of raw materials for production and consumption of goods and services to be used in his community.

The student must learn what is meant by a fair day's pay for a fair day's work and the implied obligations between the consumers and producers.

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[1] Wigtil and McCormick, Conference to Develop Objectives and Models Continuous Exploratory Programs Related to the World of Work. West Georgia College. August 1968.

World of Work

This area is concerned with the student's development of a method for collecting information about jobs. It also is concerned with the student developing an understanding of what behavior is required to do certain jobs. Examples of job information include, in part, the following items:

Job entry levels
Performance activities
Working conditions
Education and Training requirements
Availability of jobs
Seasonality of jobs
Job status
Advancement possibilities

Education and Training

The student must learn what behavior modifications (education and training) will be expected of him for certain jobs. In doing so he will learn the innate abilities he has and if these abilities can be developed to the level required to perform certain jobs he chooses for his vocation.

Students must learn which educational programs will help them to acquire the experience that will help them to develop the performance behavior required for certain jobs.

Employability and Work Adjustment Skills

This section is concerned with attitude strategies and the importance of the development of successful attitude strategies which are necessary for continued economic gains.

Students must learn how good attitudes are a contribution to their own adjustment and success as well as the success of their community. People are dismissed from their jobs more often because they cannot get along with people than they are because they do not have the skills for their jobs.

Decision Making

Students must learn a method for making decisions if they are to become employable and well adjusted citizens. They must learn to gather facts about themselves, jobs, and values and how to weigh this information to reach a conclusion as to what work they are able to do and what work they want to do.

The success of the Career Exploration Program is dependent on a viable integration of the six personal developmental areas and the theoretical framework developed by Dr. Quaranta.[2] The next few pages illustrate a sample of such integration.

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[2] See page

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To experience how the process of self-understanding can assist one in the development of vocational skills, attitudes and habits necessary for self-fulfillment and social worth.	To develop the student's ability to adjust to changes in occupational areas and understand the impact of change on environment and social adjustment.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to replicate differences in jobs requiring strength in: * physical development * emotional maturity * degree of socialization.	Have students visit a work sampling installation and sample a variety of jobs over a one week period.	CEP coordinator arranges transportation and parental consent release forms. Students will be under control of sampling center for one week.
The student will be able to formulate and prepare want-ads for employment purposes. To relate job skills to specific occupations.	Students compose, employment want-ads, role-playing as personnel interviewer, applicant. Want-ads to be published and distributed.	Bring in old papers for examples. Access to duplicating equipment. Several copies of D.O.T. for reference.

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To understand the economic signifiance of work.	To provide the information concerning the economic significance of work.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to describe the inter-dependancy of all workers and work talents in contributing to the general economic welfare.	Have the students relate the economic significances of work to other significances of work.	Provide instructional materials and resource references concerned with the role of work in society.
The student will be able to report on why their parents work.	Students will prepare position papers on the topic "Why Work?" Then the student will interview their parents and report back on "Why They Work?"	Information concerning the depression of the '30's and concerning job fluctuations.

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES.	PROGRAM OBJECTIVES
To learn the occupational language of the world of work.	To provide activities which will enable the student to understand and recognize occupational language in the world of work.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to define common language in the world of work.	Have students assigned to different occupations and have them look up 5-10 words and report to the class the meanings of these words and why they are used in that particular job.	Class discussions: arrange library time for research; obtain several copies of Occupational Outlook Handbook; obtain trade magazines or magazines with articles relating to the world of work.

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To differentiate between academic curriculum and vocational curriculum.	To provide information concerning academic and vocational curricula offered in high school.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify courses required for vocational and academic curricula.	Have guidance counselor and/or vocational counselor come to class to speak on what courses should be taken for academic and vocational programs.	Contact guidance counselor, Advanced Placement teacher, vocational teacher for talks, panel discussions, contact vocational and academic teachers for tours in their respective departments, have class discussion.

EMPLOYMENT AND WORK ADJUSTMENT SKILLS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To acquaint students with expectations of employers concerning jobs.	To provide information to the students concerning employers' expectations of an employee.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to characterize the expectations of an employer.	Have each student survey job expectations of one person already employed. They could use parents as source. Bring in a list of at least 5 expectations.	Have students interview an employee, class discussions, contact employers for part-time work for students, arrange for upperclass students to speak to class, role-playing situations.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To experience varied decision-making situations and opportunities to test the outcomes of their decisions.	The school will provide students with a variety of opportunities to test the outcomes of their decision-making while developing an awareness of their responsibilities in this decision-making process.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
In the ongoing sequence of learning experiences, the student will continue to explore situations by identifying opportunities for decision-making.	Construct opportunities for the student to be aware of his contribution in the decision-making process.	Class room procedures will include roleplaying and other opportunities to test the outcome of various decision-making situations, which in turn, would lead the student to an understanding of his responsibility in this process.

REAL WORK EXPERIENCE COMPONENT

An alternative to paid work experience would be an organized schedule of observation on the job with a pattern of job analysis for study to give meaning and substance to the experience.

In this instance, if real paid work experience were unavailable, the students would be placed in culminating on-the-job pleacements after they have vicariously studied and simulated the particular job they had chosen. This experience would be of 2-4 days duration. It would be found in the various factories, industries, establishments, and businesses in which the community has agreed to participate, and in which a planned sequence of events are arranged by that business to give the student observable experiences.

One process that would be utilized would be the making of a job analysis by the student during the period of the observation. This may be on one or several jobs within the experience time alloted. A sample form is shown on page 25 for a model, but others may be devised through the local advisory committee, or other sources.

In the exploration, a feed-back in class with structured research for follow-up on the real experience shall be instituted. The group or individual which had the experience may have a summary follow-up meeting with the industry at the industry location or in the school.

To facilitate the business side of this experience, it is expected that a supervisor on duty at the business or industry be assigned by the industry to direct the learning experience of the CEP students, and that the school contract with the industry for those costs that are added to this activity in terms of supervisor time, supplies, and insurance necessary to schedule and guide the in-plant activity.

It is expected that eventual labor law changes and insurance modification will have to be made, which would result in employment of these students in the CEP program under protection of schools workman compensation laws. Until that happens, it is necessary to simulate the experiences as nearly as possible with this alternative or through extensive Vocational Education shops and laboratories on the school site.

Job Information

1. The number of job titles in (Business or Company)

____

2. Particular job requirements and applications:
    - A. Age
    - B. Training or experience: previous or on the job
    - C. Education
    - D. Physical requirements
    - E. Special abilities
3. Job functions, duties, responsibilities
4. Salary range or wages and fringe benefits
5. Working conditions and particular hazards (extra pay)
6. Job security, availability, and future demand(s)
7. Capital investment
    - A. Tools
    - B. Uniforms
    - C. Equipment
    - D. Other costs
8. Particularities of dress
9. Transportation and travel

SAMPLE UNIT OF SIMULATED ACTIVITIES

When the objectives are established and activities chosen, the following pages are shown as an example of a detailed lesson plan for the teacher to design his "hands on" project.

This project may be related to the discipline subject being taught, or it may be in some vocational or practical arts classroom. Later on we will discuss the method of putting this together in a hypothetical school siutation including vicarious experiences, simulated experiences, and finally the real experiences on the job.

In this section, we are setting the basic pattern for designing a "simulation" on a theoretical model and in the Appendix F have given you some samples of loosely drawn simulations which you could make yourself or obtain from commercial sources.

It is suggested that the form be used by the teacher in simply putting down the "hands on" activity the teacher chooses to use, keyed to the objectives and concepts designed by the teacher in advance. After the point of the simulation, on-the-job experience or in-depth program in Vocational Education shops or laboratories will be planned. Some of the simulations may flow over into these shops if available, and you will find that some of them are in great detail for this purpose. Teachers who have the shop and laboratory skills will probably desire to go this route, but where these types of experiences are not available, a system of on-the-job exploration will have to be designed. It is recommended that this simulation be presented by an Industrial Arts or a Vocational Machine Trades teacher.

OBJECTIVES

1. To acquaint students with the Machine Trades occupations.
2. To assist students in making decisions regarding choices of career occupations.
3. To give students experience in various phases of the Machine Trades Industry.
4. To provide an environment similiar to the actual environment in industrial shops.
5. To increase the students knowledge of shop operations as related to actual job availability in industry.
6. To help the student become aware of actual working conditions in the Machine Trades Field

Recommended Setup: The following material can be set up as individual work or as production line work depending upon the type of employment in your area. It can also be used in part or as a whole unit depending upon your school shop and the time allotted to present this program to your students.

Material required: Stock 1/4 x 1 x 6-1/8 flat stock.

MACHINE SHOP OCCUPATIONS

CONCEPT	METHOD
I. Introduction to Unit	(Distribute handout sheets--copies from D.O.T. listing machine trades occupation --instruct students to save.
Familiarize students with occupational titles	Use D.O.T. Volume I if available. Have students look up occupations mentioned on the handout.
Purpose of the study is to help students make choices in Machine Trades Occupations.	Statement to class: We are going to explore Machine Trades Occupations. Later you will get the "feel" of working in the shop in one of the trade occupations.
II. Machine Trades related Occupations	NOTE: The purpose of this unit is not to acquaint students with all machine trades occupations but to convey to students a feeling of what it is like to work in the machine trades field.
Simulation experience	Statement to class: We will examine some of the conditions a machine operator could expect to encounter.
personal appearance	Statement to class: Safety goggles must be worn in the shop to protect the eyes from flying objects. NOTE: At this point, pass out safety goggles to the class with this statement, "Please put these on and wear them for the remainder of this period to get the 'feel' of wearing safety goggles." Advise students of the necessity to wear protective clothing on some jobs (grinding, welding, etc.) or of wearing close fitting clothing with no loose ends that might be caught in moving parts of machines. Have a safety discussion. Refer to Section III-1 "Shop Safety"

CONCEPT	METHOD
Required background	Emphasize that knowledge of blueprint reading and math are vital to machine operators.
Math	Have some practice with fraction as related to a ruler. Read the ruler, review decimals and converting fractional ruler measurements to decimals. If available, demonstrate use of micrometer for measuring. Allow students an opportunity to measure with the micrometer.
Simulated blueprint reading	Pass out blue prints. NOTE: Almost any high school shop project blueprint will do. Explain that the drawing is front, top, and side views of the same object. The numbers are size dimensions given in fraction form and decimal form. Permit students to study the blueprint for a few minutes with the purpose in mind that they are to try to visualize the size (as given by the dimensions) and the shape (as shown by the views). Discuss the blueprint. Ask for a description, for sizes of holes, depths of holes, diameters, etc. Ask for dimensions not shown. (Computed dimensions such as when a dimension from the center of a drilled hole to the edge of the object is given, what is the distance from the side of the hole to the edge of the object.) NOTE: If your school has a metal shop get one piece 1/4 x 1 x 6" steel for each student and one piece of cloth for each student. If you don't have a shop, then just the cloth will suffice.

CONCEPT	METHOD
	Pour an excess of oil on the metal bars and some on the cloths. Pass out one piece of cloth to each student then one piece of oiled metal bar. Request students not to put either the cloth or the metal down on the desk. Request that they try to wipe all the oil off the metal with the cloth. Inform students that in the machine trade, they will be in constant contact with oil and oily rags. Discuss the possibility of allergies from the oily rags.
Metal chips	Bring chips of various kinds to class for the students to handle and to look at. As the students are passing the chips around and looking at them, you bring their attention to how sharp the chips are. Also inform them that the chips are often red hot and that in some cases they fly through the air. Discuss cuts, burns, and necessity of wearing safety goggles.
Visit shops	Organize field trips to the school shops first. (If your school does not have a shop then visit another school.) Later organize trips to industrial shops
school shops	Visit the school shop during a period in which there is no class in a shop. (A class in the shop would pose problems to both you and the shop instructor.) NOTE: Shop instructor could set up a demonstration having a student operate each of the machines to show what it does. Return to classroom and discuss the visit.
industrial shop	Arrange a field trip to a large machine shop. On the day before the trip, pass out a questionnaire similar to the following (express your opinion about each of the following):

CONCEPT	METHOD
	1. sounds 2. lights 3. odors 4. floors and paths 5. space 6. jobs 7. machine sizes 8. machine speed 9. oils or coolants the operator comes in contact with 10. size of the part being machined 11. clothing worn 12. kinds of dirt on operator and his clothing
	Return to school. Discuss items watched for and others.
Movies	Show industrial arts movies of various processes in machine operation. Discuss the processes.
Simulated Experiences	A feel of the production and piece work assembly lines are of importance to understand this work.
piece work	Have for each student: 4 empty lib. size food cans 50-¼ x 20" nuts 50 washers 50-¼ x 20 x ½" long stove bolts
	At a given signal, the students are to take one stove bolt, put on a washer, then screw on one nut all the way down so the bolt, washer, and nut are all in one tight unit. Then place this unit in the fourth can. Continue until all fifty units are complete. Check the time required.
	Divide the fifty units into two piles of 25 each. Inform the students that they will disassemble the units, put the nuts in one can, the washers in the second can, and the bolts in the third.

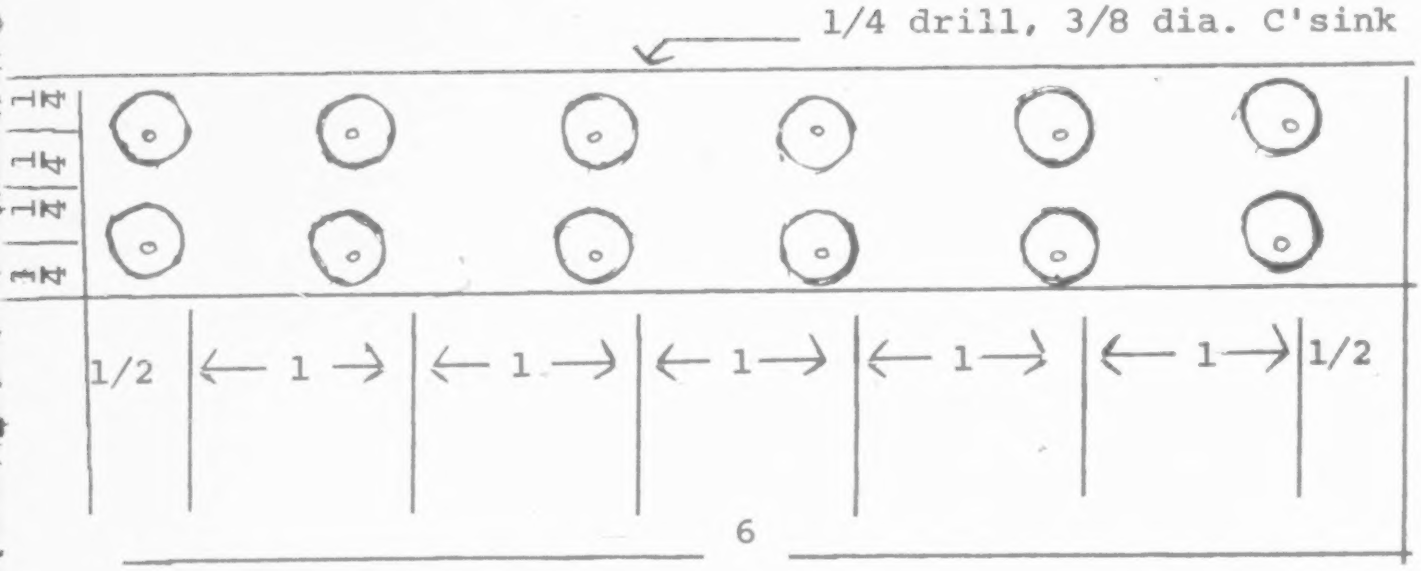
CONCEPT	METHOD
	The operation will be timed with a stop watch for each pile of 25, then the times will be compared.
	It is expected that the time for the second pile will be less. This would show that with practice, rate of production will increase.
	Discuss with the class: 1. How they felt while they were working. 2. What they were thinking while they were working. 3. Did they have any difficulties? 4. What effects did the short repetitive job have on them physically and/or mentally?
How the repetition makes the job become automatic.	Explain that this is an example of piece work. It is necessary in industry and is involved in a large part of Machine Shop Occupations.
dangers when the operation becomes automatic.	
III. Assembly Line Simulation	Arrange the students in a circle, count them off odd and even. There should be an even number of students. If not, then take the last student out of the group to be "foreman" of the group to keep them working.
	Using the same stove bolts, nuts, and washers give each student one stove bolt, one nut, and one washer. Have the even numbered students assemble the stove bolt, nut, and washer into one unit. When this is done, have everyone pass their unit (assembled or not assembled) to the next person in a clockwise direction around the circle. Now the odd numbered person has the unassembled unit. He is to assemble it. As soon as each person has completed his unit, he is to pass it on and to start on the next unit as soon as he gets it.

CONCEPT	METHOD
	The even numbered people keep on assembling units and the odd numbered people keep on disassembling the units for the remainder of the period.
Assembly line production is a dependent operation	Inform the students that this is an example of assembly line production. Examples of production slow down can be shown if one person has a particularly hard time with one unit. (If a washer is hit with a hammer so it won't slide readily on the stove bolt, a line breakdown can be effected.)
Conclusion of simulations	Class discussion of: 1. Experiences they liked 2. Experiences they did not like 3. Experiences they could live with 4. Experiences they couldn't tolerate 5. Decision they had come to regarding themselves and machine shop occupations.
Hands-on experience	NOTE: After the simulation experience the "hand-on" experience would follow naturally if the equipment to be used is available.
Shop safety	Statement to class: Safety procedures in an industrial shop amount to using common sense and good judgement, and common sense will tell you to notify the instructor immediately when injured in the shop, regardless of how slight that injury may be.
Clothing in the shop	Statement to class: Always wear appropriate clothing when working with machinery. This should include short sleeves, hairnets, cloths that fit, safety shoes if working around heavy materials, and avoid wearing watches, rings, bracelets, or other loose jewelry which can catch in machinery.

CONCEPT	METHOD
General safety procedures	NOTE: Explain the following safety rules to the class: Statement to class: 1. Observe all rules of conduct. 2. Operate machines only after being authorized to do so. 3. Always follow the instructions of your teacher. 4. This shop is a place for purposeful activities, and you must direct your attention to what you are doing. 5. Avoid grasping metal that you suspect of being hot. 6. Do not alarm a person while he is operating a machine. 7. Keep your fingers away from moving parts. 8. Do not lean on machinery. 9. Do not start a machine that has any of its safety devises missing. 10. Always be sure that the work is mounted securely before starting the machine. 11. Avoid leaving a machine while it is running. 12. Stop the machine before checking the part or making an adjustment. 13. Do not use your hands to stop a moving part. 14. Use a brush to remove metal chips--never use your hands. 15. Keep machines free of wrenches while in operation. 16. Under all conditions STOP, LOOK, AND THINK before you proceed in a dangerous or unknown situation.
Principles of measuring	NOTE: Time of unit is up to teacher's discretion. Have steel rules available to class. Statement to class: The steel rule is a measuring tool used by industry for making measurements where extreme accuracy is not necessary.

CONCEPT	METHOD
	The graduations on one side may be 8ths and 16ths and the other side 32nds and 64th. NOTE: Have students take a measurement and check accuracy of his reading.
Preparing stock	NOTE: (stock same as oil simulation) Have 1/4 x 1 x 6-1/8" long stock available to all students. Have students put stock in bench vise and file burrs off stock. Statement to class: Some individuals in industry are involved in bench work. Filing is an example of one type of bench work. NOTE: Students may be positioned at one station, drill, mill, or bench work to simulate production routine of some jobs. This method is highly recommended, but is subject to instructor's decision. The following is a suggested print for squaring the ends, laying out, drilling and countersinking 12 holes in the above stock. Have the student square the ends of the stock on the vertical mill, layout and center punch the stock at the bench, as per the print, and then drill and countersink the holes on the drill press.

1/4 drill, 3/8 dia. C'sink 12 holes

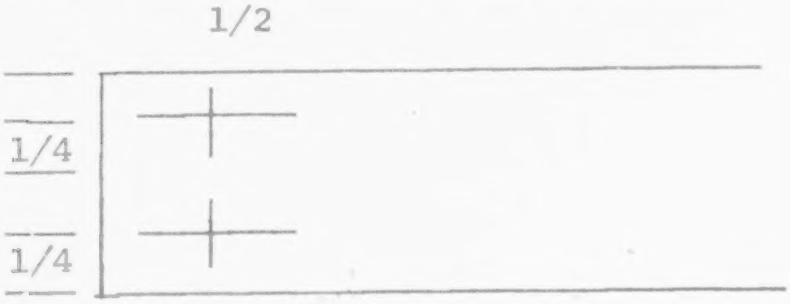


CONCEPT	METHOD
	NOTE: The illustration on previous page may be changed to suit stock and/or tooling available.
Vertical Milling Machine	NOTE: If a vertical milling machine is not available, the stock can be filed square at the bench.
	Statement to class: We will now go through the procedure for squaring the ends of stock in the vertical milling machine.
	NOTE: Have the vise mounted on the milling machine table, a suitable end milling cutter mounted in the machine spindle and the spindle speed set at the proper R.P.M.
	1. Secure the work piece in the vise. 2. Adjust the machine table into position to take a cleanup cut on one end of the stock. 3. Lock table, and take cleanup cut. 4. Stop machine spindle, remove stock from vise, reverse stock and clamp in position to machine other end. 5. Position table and take a cleanup cut on second end. 6. Measure stock length. 7. Adjust table for finish cut and lock table. 8. Take finish cut to 6" length. 9. Stop machine, remove stock and file off burrs.
	NOTE: After the stock has had the ends squared to the 6" length, have the students layout the locations for the drilled & countersink holes.
	Statement to class: Prior to drilling holes in metal parts, the holes must be located in the proper position with a scribed line, and marked with a center punch mark. The indentation made by the center punch will start the drill bit in the proper spot.

CONCEPT | METHOD

NOTE: Each student should be supplied with layout dye, combination square, scriber, center punch and ball peen hammer.

1. Apply a thin coat of layout dye to one side of the workpiece.
2. Set the combination square to the proper reading to scribe intersecting lines at each hole location.



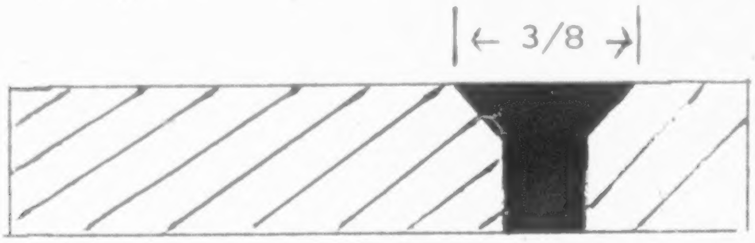
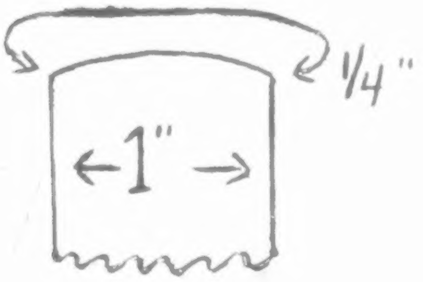
3. Mark each intersection with a center punch mark.
4. Check each center punch mark for accuracy.

Drill press (repetitive work)
(precision work)
(safety involved)

Statement to class: We will now go through the procedure for drilling and countersinking work held in a vise on a drill press.

NOTE: Have the vise located and locked down so that the student can drill one row of holes as per print--turn the stock 180° and drill the other set of holes without having to relocate the vise.

1. Place the workpiece in the vise.
2. Adjust the stock so that the punch mark is under the point of the drill.
3. Lock the vise on the workpiece.
4. Start the machine, bring the drill point in contact with the workpiece and advance until the drill has made a distinct impression.
5. Raise the drill and examine the impression to check if the hole has been started at the position desired. If impression is not on mark, help student to realign.

CONCEPT	METHOD
	6. Draw the drill down and feed it through the work slowly. 7. As the point of the drill breaks through the metal, decrease the pressure on the feed mechanism and continue until the hole is complete. 8. Stop the machine, unclamp workpiece, and position the next hole, and continue as before. 9. When all the holes have been drilled insert countersink in the drill press. 10. Follow drill procedures 1-4 with countersink instead of drill. 11. Bring countersink in contact with metal and advance until top of hole is 3/8".  12. Procede and countersink all holes to above print. 13. Remove workpiece and file all burrs.
Bench work	NOTE: Students will now take workpiece and secure it in a bench vise to hand radius corners. Statement to class: You will now experienc one aspect of bench work. You will put a 1/4" radius on the four corners of your workpiece. (demonstrate filing) Procedure: 1. Place work in vise and file radius' four corners to fit 1/4" radius gauge if available. 

Chapter III

Ten Occupational Areas

TEN OCCUPATIONAL AREAS

Within the world of work, there exist many possibilities for career development. Having considered the Dictionary of Occupational Titles (D.O.T.), Occupational Outlook Handbook (O.O.H.), and other sources, Ten Occupational Areas have been identified. These areas encompass all careers, so that regardless of the procedure used to implement the exploration program, there will be maximum student and teacher involvement. The focus is on broad areas in the beginning, leading to narrowing choices, until finally, through decision making and consultation, some well defined career possibilities are determined by the students for job training.

This approach, in conjunction with the Career Exploration Program Model, can be adapted to all methods of instruction, and should include the expertise of the entire faculty in the various areas. The occupational areas are used as a base for the simulations, and are herein closely aligned to the D.O.T.

The student is involved in using the Occupational Outlook Handbook and the Dictionary of Occupational Titles in seeking information about a single career, or job category within a career, in each area. If interest persists, he can study the area further, and apply what he has found to other information presented by the Ohio Vocational Interest Survey (O.V.I.S.), General Aptitude Test Battery (G.A.T.B.), or other evaluative tools, which when combined with the information gained through guidance and counseling and instruction, presents a complete utilization of all available resources and student analysis.

Areas may be deleted, added, or modified, as the local situation demands, however, for our purposes Ten Occupational Areas have been defined as follows, including several sub-sections for additional clarity. The occupational areas included in the Career Orientation Program, the Career Exploration Program, and the United States Office of Education Clusters are compared below.

IN THIS DOCUMENT	CAREER ORIENTATION	USOE CLUSTERS
1. Agriculture	X	X
2. Business and Office	X	X
3. Communication and Media	X	X
4. Consumer and Homemaking		X
5. Fine arts and Humanities		X
6. Health	X	X

IN THIS DOCUMENT	CAREER ORIENTATION	USOE CLUSTERS
7. Marketing and Distribution	X	X
8. Sciences		
a. Environmental		X
b. Life		
c. Physical		
9. Service	X	
a. Public	X	X
b. Personal	X	X
c. Hospitality	X	X
d. Recreation		X
10. Trade and Industrial	X	
a. Construction	X	X
b. Manufacturing	X	X
c. Service (repair)		
d. Transportation	X	X

During the exploration of these areas, simulated and experiential techniques must be used to give more depth and meaning. The type and amount will vary with the methodology used. Specific suggestions and methods will be presented in the activity section of this guide. It will then become abundantly clear that the total concept of School and Student Analysis, Occupational Areas, Activities, and Instructional Units, present a concise and workable career exploration program.

THE USE OF THE TEN OCCUPATIONAL AREAS

This guide presents specific page numbers in the D.O.T. and the Occupational Outlook Handbook, that will direct the user to many of the occupations within each area. The pertinent O.V.I.S. scales are also indicated for each section. This guide does not present specific occupations, but does identify pages and codes that are relevant, thereby maximizing flexibility.

With further reference to the D.O.T. the student, teacher, and/or counselor can quickly find and identify a multitude of occupations within each area. This information is found in the Nine Occupational Categories defined in the D.O.T. (Vol. II, page 1). Many of these possibilities are listed at the bottom of each occupational area. They are labeled as "Two Digit Occupational Divisions of the D.O.T."

These divisions will lead directly to the Occupational Arrangement of titles and Codes (D.O.T. Vol. II, page 33), from which specific job titles can be identified. This information will then serve as a guide to D.O.T. Vol. I for detailed descriptions of jobs. Reference could also be made to the DATA, PEOPLE, THINGS hierarchies in D.O.T. Vol. II and, through the six digit code, to the Supplement which will indicate on what page in Vol. II the Worker Trait Group for that job can be found.

EXAMPLE: (Follow in D.O.T. Vol. II) In considering the Communications Area, one of the division codes listed is 23. This general code can be found in Vol. II, page 7. Nine areas of work are shown, one of which is Telegraph operator, number 236. This number can be found in Vol. II, page 62. Also, under 236 are listed several specific job titles with six digit codes; for example, Telefax clerk 236.382. This six digit code refers you to Vol. I, page 728 of the D.O.T. for a specific description of the job. The DATA, PEOPLE, AND THINGS hierarchies are found in Vol. II, page 629, Appendix A. The Worker Trait Group for 236.382 is located in Vol. II, page 274. Throughout this exploration process, constant reference should be made to the O.V.I.S. and G.A.T.B. scales to explain to the student more clearly his potential interests and aptitudes, assisting him in his decision making process.

Agriculture - Area 1

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Farming	569-587	299-300	01
		320-324	06
		305-306	07
		337-338	15
		411-412	16
		413-414	
B. Fishing	141-144	282-283	01
		299-300	02
		360-361	06
		385-386	15
		411-412	16
		435-436	17
		444-467	
C. Forestry	47-50	299-304	01
		245-247	06
		282-283	07
		305-306	14
		322-333	15
		360-369	16
		411-414	17
		416-417	18
		420-421	
		447-448	
D. Landscaping	228-230	299-300	02
		305-306	15
		320-323	16
		377-380	18
		411-412	

Two digit occupational divisions of D.O.T.
00,01,04,09,18,40-46,94

Business and Office - Area 2

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Administration, Business 1. Negotiations	27-39	237-240	05,17, 18
B. Managerial and Business 1. Training	263-265	241-242 245-247	11,18
C. Accounting, Auditing and 1. Related Work	27-30	252-253	13
D. Clerical and Secretarial	271-293	261-264 276-292	05,06, 08,18

Two digit occupational divisions of D.O.T.
02,11,16,18-24

Communication Media - Area 3

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Entertainment	161-171 173-175	389-405	22
B. Writing	30-37 215-220 503-507 740-741	482-483 387-399 522-529	12 17
C. Service	704-707 741-743 754-755 772-773 759-760 754-755 486-489	261-262 291-291	07 08 18
D. Media	499-515	230-231 514-517	07 19

Two digit occupational divisions of D.O.T.
00,01,09-15,18,19,23,65,71,72,82,90,91,95-97

Consumer and Homemaking Related Occupations - Area 4

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Artistic and Interior Decorations	178-180	228-234	
B. Child and Adult Care	340-343 478-480	479-480	04
C. Cooking and Related Work	115-117 147 730 778-780 325-330 342-343	310-311	10
D. Costuming, Tailoring and Dressmaking	619-628	308-309	10
E. Home Economist	225-228	337-338 488-490 341-342	08

Two digit occupational division of D.O.T.
02,04,09,30,52,68,78

* * * * * * * * * * * * * *

Fine Arts and Humanities - Area 5

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Instructive Work 1. Fine Arts 2. Theater 3. Music and Related Fields	161-163	226-227	23
B. Art Work	173-180	232-235	19
C. Musical Work, Instrumental and Vocal	166-171	394-397	21
D. Dancing	163-166	398-399	22

Fine Arts and Humanities - Area 5 (Continued)

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
E. Creative Writing	215-220	524-525 526-527	12
F. Social Science, Psychology and Related Research	181-193	294-295	12

Two digit occupational divisions of D.O.T.
04,05,11,12-15,70,73,74,77

Health Occupations - Area 6

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Physicians, Surgeons and Osteopaths	77-82	471-474	24
B. Dentists	82-84	471-472	24
C. Veterinarian	122-124	418-419 473-474	14
D. Nursing and Related Technical Services	90-95	477-478	09
E. Dietitians	115-117	333-334	23
F. Pharmacists	97-99	418-419	14
G. Medical and Health Technicians	108-113	477-478	09
H. Therapeutic and Related Work	102-107	475-478	24

Two digit occupational divisions of D.O.T.
02,04,07,18,30,35,71

Marketing and Distribution - Area 7

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Promotion and Publicity	30-35	482-483	17
B. Purchase and Sales Work	295-316	484-454	20
C. Sales and Service Work	301-303 311-318	486-487	03,08,20
D. Demonstration and Sales Work	311-318	488-490	08,20
E. Delivery and Service Work	415-432	491-492	08

Two digit occupational divisions of D.O.T.
02,05,11,16,18-29,90-92,95-96

Natural Sciences - Area 8

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Environmental	47-53	299-304	14
	133-141	416-417	15
	181-193	418-419	16
	228-230	420-421	17
	260-262	466-467	18
	825-826		
B. Life Sciences	144-152	299-304	14
		333-334	15
		418-419	16
		420-421	18
		466-467	23
C. Physical Science	63-75	371-372	13
	125-130	373-374	14
	152-160	375-376	18
	205-211	379-380	20
	257	381-382	
	297-698	383-384	
		385-386	
		418-419	
		468-469	

Two digit occupational divisions of D.O.T.
00,01,02,04,05,18,43,44,46,71,72,82,95

Service Occupations - Area 9

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Public	55-56	236-237	03
	195-203	276-277	17
	249-257	289-290	18
	809-828	243-247	01
	230-238	354-355	11
	330-342	335-338	05
		415-417	23
		322-331	
		427-428	
		341-344	
B. Personal	799-808	461-462	18
	319-330	507-508	03
	342-346	499-500	10
		258-259	08
C. Hospitality	777-780	461-462	18
	698-700	319-320	02
	283-284	322-323	11
	290-293	258-259	01
	803-808	261-262	03
		360-362	
		299-300	
		507-508	
		509-510	
D. Recreation	252-254	392-393	15
	260-262	394-395	18
	733-743	396-397	17
	777	398-399	21
		400-401	22
		402-403	
		404-405	

Two digit occupational divisions of D.O.T.
04,05,10-12,15,18,24,30-38,90,91,96

Trade and Industrial Occupations - Area 10

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
A. Construction			
1. Manual Work	597	447-459	01
2. Machine Work	357-392	319-321 435-442 444-445	02
3. Crafts and Precise Operation	395-411 392-395	312-318	07
4. Appraisal	357-392 395-411	385-386 420-421	14
5. Management and Supervision	257-262 353-355	299-306	18
B. Manufacturing			
1. Manual Work	599-600 601-688	322-330	01
2. Machine Work	433-445	312-332 333-442	02
3. Inspecting and Testing	645-681 537 606-662 622-671	271-273 282-286	06
4. Crafts and Precise Operations	347-355	312-318 430-432	07
5. Appraisal	205-211	381-384 418-419	14
6. Applied Technology	63-74 205-213	371-372 467 377-384	16
7. Management and Supervision	353-355	299-307	18

Trade and Industrial Occupations - Area 10 (Continued)

Sections	(page) O.O.H.	(page) D.O.T.	(code) O.V.I.S.
C. Service and Repair	447-498 772-774	322-324 312-314	01,02
D. Transportation	415-432 689-708	261-262 422-423 444-445 519-520	 02,08 05,07

Two digit occupational divisions of D.O.T.
00,01,16,18,19,35,42,50-59,60-69,70-79,80-89,90-94

Chapter IV

Application of C.E.P. to a Hypothetical School Situation

Chapter III

APPLICATION OF C.E.P. TO A HYPOTHETICAL SCHOOL SITUATION

INTRODUCTION

In the following section, the model developed in this manual has been "walked-through," step-by-step, block-by-block, in order to demonstrate the use of the model in a hypothetical school situation.

The selection of "HIGHLANDS HIGH SCHOOL" was not meant to represent any specific actual school but, rather, was created arbitrarily for illustrative purposes only. Also, there was no intention to create an ideal school situation with all the necessary elements for a complete CAREER EXPLORATION PROGRAM. These are several features of "HIGHLANDS HIGH SCHOOL" which are less than ideal and were made so, intentionally, to illustrate ways in which adjustments can be made when conditions prevail which are less than ideal.

HYPOTHETICAL SCHOOL SITUATION

Highlands Senior High School

The county has three main industries. A rubber company, manufacturing baby bottles, nipples, and other rubber items; a large lumber industry, and the only hospital in the county, the county retirement home for the aged, and two nursing homes.

The school system has a Superintendent, Assistant Superintendent, five Principals, one Assistant Principal, a Curriculum Supervisor, a Counselor, a Purchasing Agent, and a C.E.P. Coordinator.

This school is located in a typical Northeastern Ohio Community. Most of the parents have had a high school education. There are four elementary schools and one high school. A Joint Vocational School Center also serves this district.

The dropout rate is 5%, of which most are boys. The percentage of students entering college is 30%. There is a state university located approximately ten miles away.

The teaching staff consists of twenty-three teachers. Eight have Masters Degrees and fifteen have Bachelor's degrees. Pupil-teacher ratio does not exceed thirty-to-one. Three teacher aids are assigned to assist the teachers.

Office staff consists of one secretary and one part-time secretary. Students from the Business Education Department contribute four hours each day.

Cafeteria facilities are adequate, although a new Cafeteria is included in the projected building plans. Presently the central activity room is being used as a cafeteria. The staff consists of one head cook, and two assistant cooks. A part-time Dietition plans the menus for the high school as well as the four elementary schools. The purchasing agent is responsible for securing the food. Eight students work for one hour each to assist with the serving as well as assisting with food preparation.

THE INDIVIDUAL IN
HIGHLAND SENIOR HIGH SCHOOL

INDIVIDUAL PLANNING

Most of the students in this school system have been exposed to the K-8 continuum. There are, however, some who have moved into the district during the past year and have not had these experiences.

For purposes of illustrations, we will follow one group of these students through the program during the ninth grade. Since these students have not had the earlier phases of the continuum, they need to be given additional background so that they can make wise choices from within the Ten Occupational Areas. Out of the 180 students in the freshman class, 18 have not had this orientation program. The program, as implemented at Highland, dictates that these students will attend a two week orientation program.

This program is taught by the Guidance staff assisted by other staff members who have particular input which may be of importance. This orientation includes brief fundamentals of various areas of work as well as having the students participate in some individual research into areas which have particular interest for them.

After this orientation these students will merge with all other freshmen and go through the analysis phase of the program.

This phase is spread over the first quarter of the year. Individual conferences are scheduled with the counselor throughout the quarter. The district testing program includes the California Test of Mental Maturity and the Stanford Achievement Test at the seventh and eighth grades. Part of the current analysis involves administration of the G.A.T.B. and O.V.I.S., with interpretation of these to the student. Other factors such as suggested in the explanation of the Student Analysis Phase are considered and discussed during these interviews.

The philosophical Six Areas are of no real concern to the student at this point, since these are not actually things that the student can choose or have control over, but rather, are foci for the school staff.

The importance here is primarily to make the student aware of what these Six Areas are, and that he should consider them in whatever he studies.

In the same vein, the Ten Occupational Areas are given a general, brief description during this orientation quarter.

STRATEGY

The primary focus, for the Ten Occupational Areas, is during the individual and small group guidance sessions in which the individual's interests, aptitudes, abilities, etc., are investiaged in relation to the job areas. By the end of this quarter, the student is expected to have chosen the three areas he wants to explore, based on what he knows about himself and how he feels he relates to the areas.

From the point of making the choice, the student becomes the center of attention. He goes through the various phases of instruction and activities presented by the teacher. It is important that he take an active part in these areas if he is to gain from the program.

OUTCOMES

During the evaluation phase, the students are tested and evaluated on various aspects of the information and experiences they have had as a means of determining what they have gained from the program.

After the experiences in the Exploration Program, the students are expected to be able to make wise choices concerning their junior and senior programs and the direction they are going after high school.

SCHOOL PROGRAM IN

HIGHLAND SENIOR HIGH SCHOOL

SCHOOL PROGRAM PLANNING

A) School Analysis:

Small High School - Conservative Community

a. 8-4 plan
b. no junior high schools
c. elementary schools throughout district
d. population stable
e. average dropout rate - 5%
f. 30% of graduates go to college
g. Current School Population

K-8	1200
9-12	575

h. Adequate Facilities
i. Socio-economic Level (County Seat) Middle Class
j. Civic Organizations - Chamber of Commerce, Lions Club Rotary Club, Kiwanis Club, Junior Chamber of Commerce, Business and Professional Womens Club, Woman's Club, and Jaycee Wives
k. Community Services - Public Library, Y.M.C.A., Y.W.C.A., Boy Scouts, Girl Scouts, and Community Center
l. 9-12 is on the quarter system (4 - 10 wk. pd.)

Student Enrollment

YEAR	TOTAL	GIRLS	BOYS
1970-1971	575	275	300
1971-1972	590	280	310
1972-1973	620	300	320

B) Curriculum areas (New or Refined):
REFINED

Subject	Occupational Area Number
a. English	5
b. Journalism	3
c. Drama	5
d. French I & II	
e. General Math	
f. Algebra	
g. Geometry	
h. General Science	

B) (Continued)

Subject	Occupational Area Number
i. Chemistry	8
j. Biology	8
k. Physical Science	8
l. Physics	
m. History	
n. World History	
o. World Geography	
p. Socio-Economic Problems	
q. General Business	2
r. Typing I & II	2
s. Home Economics	4 and 9
t. Industrial Arts	10
u. Art	5
v. Physical Education	9
w. Health	6

Refined:

Each faculty member will teach the Occupational Areas as an integrated unit relating to his/her subject field. The individual class structure must be refined to fit the ten occupational areas most associated with that class.

New:

These classes must be added to the curriculum with new staff, equipment, and facilities:

a) Agriculture
b) Distributive Education

HOME ECONOMICS:

Occupational Areas will be offered to students as an integrated unit. It will be required of all 9th and 10th grade students. Each area will be taught by one of the teachers relating to their field of teaching.

Careers in Consumer and Homemaking will be taught as an integrated unit by the two Home Economic Teachers.

The major role in Home Economics training has been to assist youths to prepare for the responsibilities and activities of homemaking and the achivement of family well-being. Due to many socio-economic changes affecting women and families, Home Economics has had to assume a greater responsibility of providing training for wage earning occupations. In addition, many employed homemakers find it necessary to secure assistance in the care of family members or in the provision of other services as they contributed to the more satisfactory life.

The Home Economics program includes the following areas: Child Care, Foods and Nutrition, Clothing and Textiles, Home and Family Living, and Career Cluster - Consumer and Homemaking. (See Figure 13)

The Home Economics laboratories are well equipped with modern equipment. The foods laboratory has six unit kitchens to accommodate 24 students. The clothing laboratory has 12 sewing machines, 2 cutting tables, and work area to accommodate 24 students. The all-purpose room has facilities for simulated activities such as: home nursing, child care, interior decorating and home management.

PHYSICAL FACILITIES

SCHOOL

A) 1 Large gymnasium which converts to two small gymnasiums

B) 1 Auditorium

C) 1 Music Room

D) 1 Media Center

E) 1 Book Store

F) Storage room for educational material

G) 22 Classrooms

H) 2 Chemistry Laboratories

I) 2 Physics Laboratories

J) 1 Biology Laboratory

K) 1 Language Laboratory

L) 2 Home Economics Laboratories

M) 1 Industrial Arts Laboratory

OFFICE FACILITIES

A) Principal

B) Assistant Principal

C) 2 Counselors Offices

D) 1 First Aid Room

E) Teachers Lounge

MISCELLANEOUS

A) Toilet Facilities

(Student)
(Faculty)

B) Adequate drinking fountains

C) Personal Student Lockers Located in Hall

D) 1 Boiler Room

E) 1 Janitorial Room

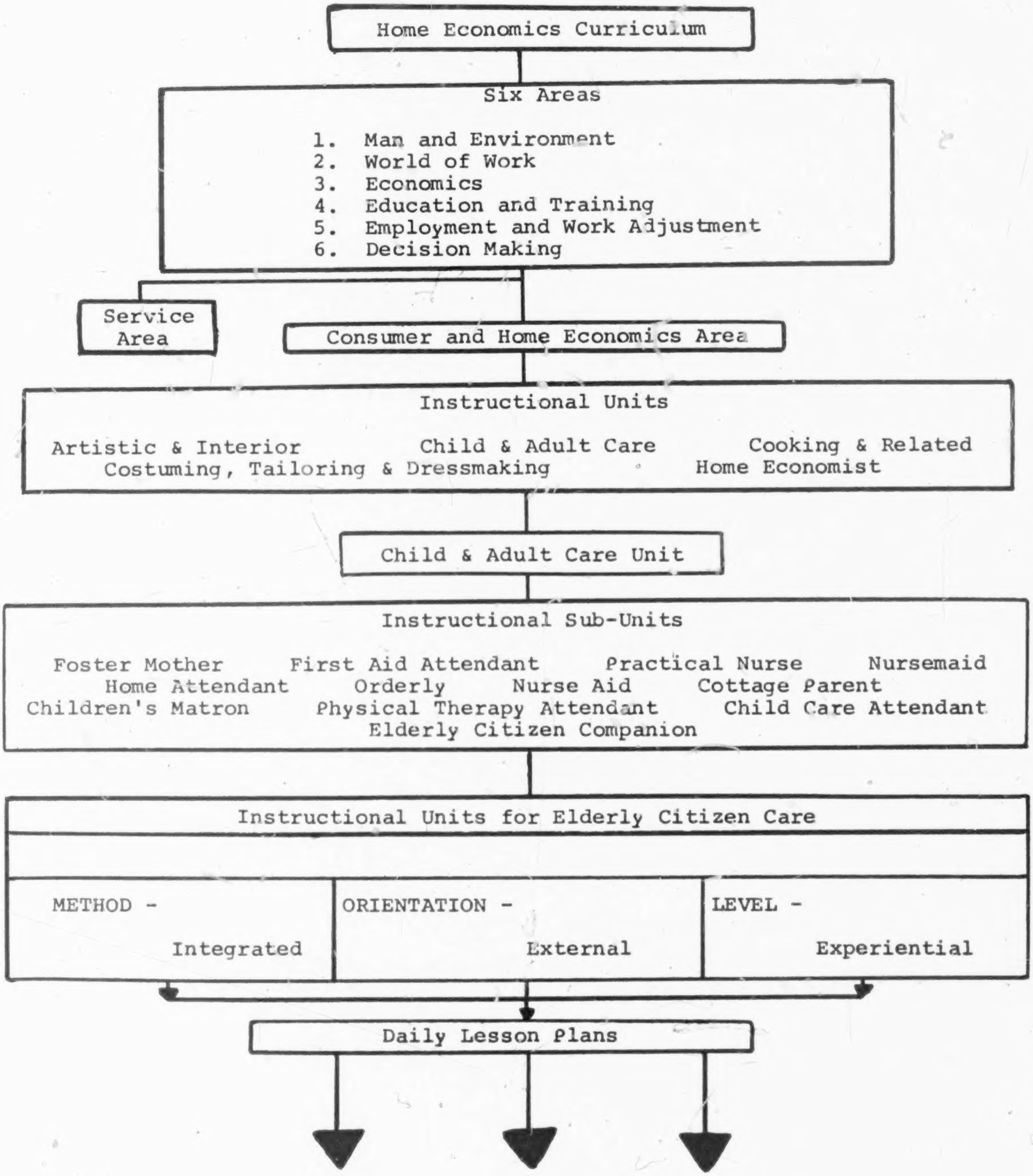
F) Cafeteria

G) Kitchen

H) All state fire code requirements are met.

I) Highland Senior High is a 25 year old two story building.

CHART FOR HOME ECONOMICS CURRICULUM AREA


Home Economics Curriculum
Six Areas
1. Man and Environment
2. World of Work
3. Economics
4. Education and Training
5. Employment and Work Adjustment
6. Decision Making
Service Area
Consumer and Home Economics Area
Instructional Units
Artistic & Interior
Child & Adult Care
Cooking & Related
Costuming, Tailoring & Dressmaking
Home Economist
Child & Adult Care Unit
Instructional Sub-Units
Foster Mother
First Aid Attendant
Practical Nurse
Nursemaid
Home Attendant
Orderly
Nurse Aid
Cottage Parent
Children's Matron
Physical Therapy Attendant
Child Care Attendant
Elderly Citizen Companion
Instructional Units for Elderly Citizen Care
METHOD - Integrated
ORIENTATION - External
LEVEL - Experiential
Daily Lesson Plans

SCHOOL PROGRAM STRATEGIES - Consumer and Homemaking Area

A) Instructional Units

1. Artistic and Interior Decorations
2. Child and Adult Care
3. Cooking and Related
4. Costuming, Tailoring, and Dressmaking
5. Home Economist

Sub Unit - Occupations Covered in Child and Adult Care Unit

a. Foster Mother
b. First Aid Attendant
c. Practical Nurse
d. Nursemaid
e. Home attendant
f. Orderly
g. Nurse Aid
h. Cottage Parent
i. Children's Matron
j. Physical Therapy Attendant
k. School Child Care Attendant
l. Elderly Citizen Companion

B) METHOD - Integrated

C) ORIENTATION - External

D) LEVELS - Experiential

OUTCOMES:

INDIVIDUAL	STUDENT PROGRAM
Students will list at least four names and addresses of Nursing Homes within a 50 mile area of the school.	Evaluate the student activity. Was the Activity successful?

Work:	2
Special Program:	None
Remediation:	None
General:	5
Vocational:	13
Pre-Professional:	5
	25 students

RECYCLE

UNIT PLAN FOR

CHILD AND ADULT CARE

Unit Area - Elderly Citizen Companion

Textbook: Gilbert, Jeanne, Understanding Old Age

I. Objectives:

To prepare students:

1. To identify common characteristics of older people as a basis for working with them.
2. To increase compentencies in caring for the elderly person.
3. To cultivate qualities recognized as important for successful employment.

II. Time Schedule:

Approximately five hours.

III. Introduction:

The companion to an elderly citizen relieves family members or others responsible for his well-being. Responsibilities of the job may include assisting an older person in meeting his own psychological and physical needs; helping with personal, social and routine business matters; and securing assistance in case of emergency.

IV. Pupil Activities:

1. Field trip to Beechwood Nursing Home
2. Help with grooming and dressing at nursing home
3. Serve suitable meals
4. Prevent accidents by learning proper safety measures
5. Accompany elderly citizen to barber shop, beauty parlor, doctor's office, shopping, to a movie, or extended walk
6. Reading to or playing games with the elderly citizen

V. Study Questions and Work Sheet:

1. List 5 safety measures in preventing accidents.
2. List 5 guidelines to follow when serving a meal to an elderly citizen.
3. List 4 guidelines to follow when assisting an elderly citizen.
4. List 5 psychological needs of an elderly citizen.

VI. Equipment for Activities:
1. Cane and walker
2. Wheel chair
3. Tray, food and serving dishes

VII. Supplies for Activities:
1. Books and games
2. Combs, brushes, toothbrushes, etc.

VIII. Audio Visual Media:
Film: "Care of the Elderly", 16mm, color, 27 minutes.
Explanation of job opportunities in caring for the elderly.
Source: National Council for Aged

IX. References:
1. Arthur, Julietta K. How to Help Older People: You and Yours. Toronto: Longmans Green, 1960.
2. Cavan, Ruth Shoule and others. Personal Adjustment in Old Age. Chicago: Science Research Associates, 1949.
3. Gilbert, Jeanne G. Understanding Old Age. New York: Ronald Press, 1954.

X. Consultants, Field Observations and "Hand-on" Experiences:
1. Mary Smith, Consultant, "The Psychological Needs of the Elderly Citizen."
Oaknoll Nursing Home
3824 Hip Street
Anywhere, Ohio
Phone: 362-4380

2. Field Trip
Beechwood Nursing Home
2810 Maple Avenue
Anywhere, Ohio
Phone: 362-5407
Tuesday, April 24, 1971, 2:00-3:00 P.M.
Robert Browning, Director

3. Assisting Nursing Home personnel

XI. Bulletin Board:
Theme: Elderly Citizen Companion
Pictures showing various activities for being a companion to the elderly citizen.

XII. Evaluation Methods:
Testing, reports, demonstrations

A MODEL LESSON PLAN #3

SUBJECT: Elderly Citizen Companion

OBJECTIVES

1. To orient students to the nature and scope of the job.
2. To help students cultivate personal qualities important for successful employment as a Companion to an Elderly Citizen.

LEAD QUESTIONS

Did you need help getting ready for breakfast this morning?

PROCEDURES

TECHNIQUES	TIME	MATERIALS	RESOURCES
Introduction - Many elderly people need assistance. Today we will participate in what we practiced yesterday.	5 min.	--	--
Field Trip - Beechwood Nursing Home (students will assist the nursing home personnel).	55 min.	--	Beechwood Nursing Home 2810 Maple Anywhere, Ohio

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EVALUATION

Next Day -- Discuss report assignment.

ASSIGNMENTS

Each student will write a report on his participation while at the Nursing Home.

NOTES

CONSIDERATIONS FOR PROGRAM IMPLEMENTATION

A program of CAREER EXPLORATION for grades nine and ten, or more specifically for youth ages 14-15 who are not in an Occupational Work Adjustment (OWA) program, is defined as that part of the Career Continuum Program which gives each student exploratory experiences on the basis of the interest of that individual student in an already planned sequence leading to a career choice. The program is designed to serve all students in planning for the initiation of a Vocational Education program. The following sequential arrangement is suggested as a check list of process:

1. Design proposal
2. Review proposal with advisory committee comprised of educators of curriculum level, program operation level, teacher level, student level, and employer level.
3. Set schedule for establishment and implementation of the program
4. Obtain administrative approval and committtment to support program
5. Submit for program funding approval
6. Appoint coordinator
7. Order supplies and materials and design in-service component
8. Conduct the in-service training component with classroom teachers in program
9. Order supplies and materials for teachers needed for program operation
10. Plan blocks of time and master schedule adjustment to obtain documentation of committment to program.
11. Develop flexible student schedule including course selection components
12. Plan and schedule transportation needed to carry out off-campus activity and experiences.
13. Start program (Note: It may be necessary to go back to objective setting and restructure at any point in the program if determined the program is not operating correctly)
14. Conduct pre-program evaluative techniques designed in proposal
15. Analyze mid-year progress
16. Conduct post-program evaluative techniques and make comparative report
17. Prepare report for end of year
18. Review year with advisory committee, and summarize

with report in #17

19. Adjust objectives, and recycle to administrator, and start next year adjustment with teachers and staff.

There are many problems connected with Carnegie units, with the college preparatory curriculum starting in the 9th grade, but consideration should be given to an educational plan which would delay a major emphasis on vocational or pre-professional training until age 16 or beginning of the eleventh grade. The goal of the Career Continuum Program is to assist the student to make a wiser tentative career choice than they have been making in the past. This one objective is the basis for the CAREER program.

A Career Continuum Program consists of a component at grade levels K-6 called "Career Motivation," a sequential step in 7-8 called "Career Orientation," followed by 9-10th grade "Career Exploration," and decisioning into a specific Vocational Education or a Pre-Professional Career Program at grades 11-12 before leaving high school. This infers that the CEP component is a part of a total program, and will have various segments within it for substantiating progress of the student towards the goal of career selection.

PRE-REQUISITES

It is important to understand that the 9-10th grade component cannot be fully effective unless there is a Career Motivation and Career Orientation program concurrently in operation. Admittedly, it would be well to sequence the process through from the kindergarten level which would take a cycling time of 8 years to get to the 9th grade level, but it has been established that a full start must be made in any school district to give the present students as much advantage as possible in the immediate future, and rationally starts of this type can be approved.

In addition, the district must have a solid plan of Vocational Education on file and in operation. Programs of Vocational Education that are broad and comprehensive in operation at the beginning will be given priority in the CEP program approval. All Ohio districts submitted by April 1, 1970 their VEPD analysis of the kinds of vocational programs they will have operating by 1975, and this will be the base for approval of CAREER Programs.

ENROLLMENT

All student (except those in OWA) shall be included in the CEP program for 9-10th grade students. A total CAREER program will be designed to include all the feeder schools in the attendance district of the high school down to the kindergarten level.

THE CONTROL

The CEP program must schedule a minimum of 270 clock hours of instruction for each student in the 2 years. It is recommended that this include additional work experience hours in off-hours such as after school, week-ends, and summers; this would obviously increase the number of hours to at least 540 or more for the 2 years.

Scheduling of this time can include any laboratory course that is geared to the occupations. The occupations include:

1. Agriculture occupations
2. Business & Office occupations
3. Communication and Media occupations
4. Consumer and Homemaking occupations
5. Fine Arts and Humanities occupations
6. Health occupations
7. Marketing and Distribution occupations
8. Science occupations (Environmental, Life, Physical)
9. Service occupations (Public, Personal, Hospitality, Recreational)
10. Trade and Industrial occupations (construction, manufacturing, repair, transportation)

For instance, an IACP would qualify for time in #10 if it were exploring occupations in construction trades, but the student would also be required to check out at least 2 other occupational groups.

SCHEDULING

This is the target problem in such an activity. Blocks of time are essential to program success and must be scheduled in such a fashion as to provide the minimum 270 clock hours of instruction. One such schedule is to take the 6th week in each 6-weeks period and devote the total time by ALL students and ALL teachers to the program including field trips, work experiences off-campus, and other scheduled programs.

It seems plausible that the time originally set aside for home room operation might be expanded to include CAREER experiences and information. But it seems best to identify that period of time in EACH teacher's lesson plans in the 6-week period that will specifically provide information toward the 10 occupational groups so that additional scheduling will be needed only for individual and small groups of students for the experience base in the chosen occupation. Successful operations in the pilot stages had the coordinators grouping field trips, work experiences, and information sessions together for students on an individual basis, with released time scheduled for individual students and feed-back to classes upon return by the student.

On multiple period days (8 or more including module scheduling), it will be wise to schedule study halls together, contrary to the usual spreading apart. In this manner, 2-3 periods a day may be scheduled into facilities where experiences can be gained with students and teams of teachers around the occupations. This would include facility re-vamping, and equipment analysis discussed later. The worker trait groups of the various occupations would be utilized to build the content of these facilities.

CONTENT

In addition to the listing of the occupations based on the worker trait groups, a fabric of 6 basic developmental areas exist in the CAREER program and continue through the objectives that the teachers assigned responsibility for CAREER education will write for their own lesson plans. These 6 developmental areas are:

1. Self and Environment
2. World of Work
3. Education and Training
4. Economics
5. Employability and Work Adjustment Skills
6. Decision Making

Both the 6 developmental areas which are started at kindergarten level and proceed through the 10th grade, and the occupational areas based on the worker trait groups are detailed in another section of this report. It is necessary to say that the focal point of content for ALL teachers in the 9-10th grades should include the occupations and careers.

As they revise their lesson plans with this experience setting, the basic principles and disciplines they teach will fall into place. The heart of the CAREER program is experience for each student as a basis for exploration of the job families and as a process to change the focus of teaching from role learning to goal centeredness in the American society.

As already stated, each student will explore at least 3 of the occupational areas. It is expected that many of the students will choose more than 3; so, flexibility in the program must be built in to handle this. As the focus of the 9th grade program is built around these occupations in general and around the industries they represent, the focus changes later in the 9th grade and fully in the 10th grade to be a close, in-depth examination and experiences in the shops, laboratories, and on-the-job in the specific jobs in those clusters. Although it may be determined that the student may only want one type of occupation, other experiences must be programmed to test the firmness of that decision.

Within the experiences gained in the school shops and laboratories, and through the student's on-the-job experiences, no skill is expected to be gained although some may be gained incidental to the experiences provided. The primary purpose of the content is to give him exploratory experiences in trying out 3 or more jobs of his choice. One very real content experience which is diagnostic on an individual basis is making a job analysis of the occupational family of his choice, as he goes along. With the objectives set forth in the activities designed around the simulations and disciplines in this guide in other chapters, the content will be locally developed in teacher in-service meetings and assignments.

JOB ANALYSIS USE IN CONTENT

In addition to other information approaches (OVIS, DOT, GATB, OVIS, etc.), the use referred to above in utilizing job analysis format and procedure to study occupations and jobs is recommended. The Dictionary of Occupational Titles, Vol. I, page XVIII, explains the Data-people-things code in the last 3 digits around which you can build a format from any basic job analysis text, such as referred to in many industrial, office, and other job study text books.

The student would have two uses of this procedure. First, the format would be used to catalog his observations of on-the-job experiences in business and industry in the jobs he tries his first-hand activity. The second, and primary use would be to develop job analysis for each of the three or more specific occupations he has chosen to use for his experience centered segment of the Career Exploration Program. In this segment, he would build the data-people-things items of that specific job in such a way that he would be learning the job specifications and would be able to identify his interest and aptitudes and abilities in connection with the "hands on" period.

The job analysis approach also links to the Ohio Guidance and Testing combined OVIS-GATB interface report. For example, with the OVIS administered in the 8th grade, the GATB routine completed at the beginning of the 9th grade, the print-out report for the individual student will give him a "roadmap" approach to 3 or more occupations to use in his exploration of jobs. The Job Analysis approach will then give him the documentation that makes his on-the-job or laboratory experience meaningful to him in selecting his CAREER program in the 11-12th grades.

FACILITIES AND EQUIPMENT

For the most part, as listed in the hypothetical school example, the existing school plant and the community must be used. Utilization of vocational facilities in the building plus those in the area schools in public education will be necessary to carry out the laboratory phases and information sections of the Career Exploration Program.

There will be necessary re-scheduling, and maybe even some remodeling and additional equipping of certain facilities. Libraries and modern resource centers may be expanded, or restructuring of study halls to accommodate the simulations and information development of exploration. Since non-laboratory oriented subjects are included in CEP, it is important to develope the activities and items necessary for these teachers to exercise their ideas in true experience centeredness. The existing science, business education, home economics, industrial arts, art, music, and physical education facilities quite readily lend themselves to CEP; and Joint Vocational School facilities can also be scheduled into this program. In rural areas, vocational agriculture facilities may be used for a very limited number of career experiences, but there is no school today with enough facilities to match the use of community facilities in CEP.

TRANSPORTATION

Inherrent in the CEP is moving the walls of the classroom out into the working community. This entails transportation, an approvable expenditure. It may take several avenues.

One method is extended use of school and commercial bus facilities to take groups to and from work experiences and field trips. Costs for this operation may be high or low depending on private or school used of equipment.

Another method has been the rental or purchase of mini-buses for teacher driving of small groups of 10-12 students to job related experiences. Insurance and teacher driving tests may be necessary for such operation, although the buses of this type are the standard "box" variety with automatic transmissions and easily handled at city speeds.

When the large buses are used, definite routes for drop off and pick up may have to be established. Such scheduling and assistance should be asked from the State Finance Division Coordinator in your area if you do not have your own bus supervisor.

MATERIALS AND SUPPLIES

These will greatly expand. Occupational information is important as a supplement to experience, but cannot be substituted for experience. Displaying free college materials and bulletins is one thing, but the acquiring of occupational material takes another slant. Many sources are available for obtaining these items, and you will find a resource list in this guide.

Since one of the very reliable documentation processes in CEP is the use of the OVIS and GATB tests, the equipment and testing costs of this process may take a part of your budget. This must be planned for each of your 9-10th grade students unless part of it (OVIS) was given in the 8th grade Career Orientation Program component.

In addition, there will probably be an upturn in supplies in general in your shops, laboratories, and other activities. There are logical demands that the operators of those facilities could make and could be accepted.

In all cases where the various occupations that should be studied in a local community are not represented in the school facility, simulations and projects will have to be designed to supplement the existing facility, placed in a laboratory setting, and planned for on-the-job activities by the student desiring the experience. In these cases, heavy involvement in the community in paid and non-paid work experiences will have to be designed. The local staff will have to build these experiences in their lesson plans and in their activities called for in their design of objectives for the occupational and developmental areas.

TEACHERS

All, repeat, ALL teachers in the 9-10th grade staff should be involved. It is important to understand that we have found that Ohio teachers can adjust to this approach, and have had the basic fundamentals of self-determination in their teacher training program. Although they have been basically trained to teach their subject, they have also been trained to handle and teach students. The experience centered approach is not very evident in the subject centered curriculum, but must be the core of the Career Exploration Program.

To meet this demand, the school system during the first year will need to devote a good segment of its funds to retraining the teachers who will have to restructure their lesson plans and instructional materials. Bringing the community and the World of Work into their lessons will take quite a bit of effort on the teachers part. Putting the student into the community on a planned basis is even a bigger job. An approvable expenditure of the funds in the CEP program is for this part of the learning cycle--teacher in-service training.

Several methods have been used for in-service teacher education. Some pilot projects brought the teachers back on a series of Saturdays. Others used a full week in the summer. Others used 2-hours per day for a couple of weeks. Others spaced it out over the school year. But it is important that the administration understand that this teacher in-service aspect is a necessary segment and will continue until every teacher in the system has participated in the process, and until the output of the teacher education institutions have been converted. It should be reported that these institutions are working on this and some pilot efforts have been started in several Ohio institutions.

COORDINATION

We have referred several times to the coordinator of the CEP component. There is obviously no expanded teaching staff required in CEP, only a different focus and lesson plan. There is need, however, for someone to develop schedules, assist in transportation, run down supplies, schedule films and speakers, assist in expanded testing programs, and develop the mirad of outlines and guides that will change the course of education.

This person fills a position that is an accepted cost of the program. His qualifications are simply that he be a Vocational Education Coordinator, a Vocational Guidance Counselor, or someone with the broad work experience background and education experience who could lead teachers and staff through this developmental process and change. His mind set must be one of development of attitudes and decision making in the students for wise career choices on a tentative basis by the end of the 10th grade. The program can stand no other objective than that choice. This person must have the ability to work between schools and the community and to actually do the in-service training of teachers. Although CEP lends itself to easily becoming a good thing for all problems, its only objective, which has to be measurable, must be the basis for personnel selection to coordinate activities.

ADVISORY COMMITTEE

In the sequencing steps, it was indicated that an advisory committee was to be formed and used. Since this is a major turn-around in curriculum, it is important that every step be checked and re-checked by personnel other than those directly involved in the administration. In a true vocational way, this means involving all major curriculum personnel, counselors, administrators including principal, a parent, a student, and the necessary business and industrial persons that seem to fit the community and the project. It is not the objective here to structure the committee specifically, but the above guideline is given for selection.

The activities and purpose of the committee are to review project proposal, check on objectives written and activities proposed to see if they fit the school, community, and students. They also become a PR group to inform the community of the program, and in the end the review committee to see if the program met its objectives and to recommend to administration the changes they see are needed. Assistance from Vocational Education personnel on the use of advisory committees might be solicited.

EMPLOYERS' RELATIONSHIP

It has been shown several times that the school needs to move to the community to relate the basic disciplines to the jobs. The youth today are very real, and the employers know this--they are also parents. The wise administrator in the past has used these persons as their own confidantes, but in Vocational Education we have found them to be willing to become deeply involved in school and the products they receive from your schools, your graduates (and drop-outs).

In the CEP component, we are trying to break back into the employment market for exploration experiences for the 14-15 year old students. They have been blocked from work experiences, and we know that laws will have to be changed and insurance modified to handle this, but we should be willing to attack the problem. As you pave your front yards and condominiums, as you automate your stocking and cleaning, as you imposed strict laws and strict enforcement of laws on employers, the youth of America have been blocked from the job market. He exists on dole from someone, and it is important that we approach this with the employers with open eyes and with the objective of getting job experiences back into our 14-15 year old youth so that they may make a better and wiser choice for their future.

The employer relationship will be long time in building, but it is an objective in the CEP component to push out the walls of the school to meet the community in its job market. For instance, in business itself, a coordinator may be contracted to work in the larger places of employment on scheduling and designing programs of experience for the students in that business. This concept implies that the employer will have costs and demands that have to be met in terms of handling large numbers of students in his pland and business.

ON-THE-JOB SEGMENT

One segment of the CEP component is the pushing out of the school walls to the community. In setting up the on-the-job experiences under the current wage and hour laws and insurance laws, it is evident that the work that is available to 14-15 year old youth is very limited and not very often related to their ultimate career objectives.

It is expected that eventual labor law changes and insurance modifications can be made, but an immediate adjustment will be undertaken through employment under the protection of the school's workmen's compensation section. If this change in insurance laws looks as though it might become reality, then the explosion of students into business and industry will occur.

If this occurs, the reference to the "business coordinator" in the previous section becomes a logical cost for this added activity to cover supervision, supplies, and even insurance. This can be a contracted service for reimbursement purposes. The industry coordinator would design and operate the on-the-job sequences for the school to see that the students get broad experiences which the student could analyze through job analysis techniques in his chosen career exploration. These costs would be those exceeding the normal costs of doing business and should be identified by the business or industry in this service for the schools.

COSTS

From time to time, mention has been made of accepted expenditures for funding and reimbursement. The basic concept of funding in the CEP component is one of the costs that are over and above whatever is normal to the school program.

The coordinator costs, including fringe benefits, are probably the first item to consider as additional costs. Transportation costs that are added to normal costs are approvable. Test costs, evaluative costs, industrial supervision costs.

If you have an audio-visual department, CEP funds should not be used to purchase this type of equipment, but extended costs in the A-V area may be funded. Since facilities for business education, home economics, or industrial arts are required as part of the required school program, no additional funding will be approved for these facilities, although additional supplies for operating the CEP component in these facilities become a legitimate cost.

Teacher in-service training costs are logical and the costs of consultants to help in their in-service training are included. Travel, communications that are abnormal, printed materials, distribution of reports are examples of other items that have been approved.

For the pilot projects, $30 per student budget was approved upon evidence by affidavit on the above items. (Note: Career Motivation K-6 = $20 per student; Career Orientation 7-8= $25 per student.) It is expected that additional State budget will be generated in the next 5-10 years to broadly expand CEP component into every school in Ohio.

REPORTS

Under the present exemplary projects approach, proposals must be submitted in format supplied and under variations each year. A mid-year abstract of progress is required by February 1. The end of the year report (June 30) consists of the same items as in the proposal with the evaluation of each item:

1. Statement of problem
2. Statement of objectives
3. Description of activities
4. Techniques of evaluation of ojectives and results
5. Contribution to education

Further information on these forms and procedures will be handled through the office of the CAREER EDUCATION PROGRAM COORDINATOR or the specific component supervisor.

Reimbursement procedures will be standardized at the time when broad funds become available through State and/or Federal appropriations, and schools will be notified of the change. Until such time, project proposals, approval, mid-year report, end of year report, and reimbursement will continue to be used.

Chapter V

Resource References and Recommendations

Chapter V
Resource References and Recommendations

INSTRUCTIONS FOR LOCATING RESOURCES

1. Locate the correct occupational area number in the career exploration book. "G" column applies to all clusters.
    1. Agriculture
    2. Business and Office
    3. Communication and Media
    4. Consumer and Homemaking
    5. Fine Arts and Humanities
    6. Health
    7. Marketing and Distribution
    8. Sciences
    9. Service
    10. Trade and Industrial

2. Turn to the cross reference chart on page

3. Locate the occupational area number in the row at the top of the sheet.

4. Search down the column until you encounter an "X" in that column.

5. Move across column to your left and locate the bibliography resource number.

6. Turn to the bibliography on page

7. Search down the resource number column until you locate the reference table number from the cross reference chart.

8. Reference table number will indicate the type of publication according to the following table:

    A - Audio
    B - Book
    F - Film
    K - Kits and Games
    M - Magazines and Periodicals
    N - Newspapers and Brochures
    O - Organizations
    P - Pamphlets
    T - Transparencies

9. Return to bibliography.

CROSS REFERENCE CHART

Resource Number	Type of Resource	Occupational Area										
		G	1	2	3	4	5	6	7	8	9	10
1	P	X										
2	B			X								
3	P											X
4	F									X		
5	F	X										
6	F	X										
7	B		X							X		
8	F	X										
9	P				X							
10	F							X				
11	F										X	
12	O	X										
13	B				X							
14	B								X			
15	M		X									
16	O	X										
17	B	X										
18	F											
19	F						X					
20	P	X										
21	O											X
22	P											X
23	F									X		X
24	O											X
25	B					X						
26	B						X					X
27	P								X			
28	M	X									X	X
29	O			X								
30	O	X										
31	B											X
32	O	X										
33	P	X										
34	B					X						
35	P	X										
36	P									X		
37	P	X										
38	O	X						X				
39	P										X	
40	P									X		
41	O				X							
42	P											X
43	P							X				
44	P				X							
45	P									X		X
46	F										X	
47	O							X				
48	O					X						
49	P		X								X	
50	P										X	
51	O	X										
52	P											X
53	O							X				
54	F											X
55	P				X				X		X	
56	F											X
57	B	X										
58	B	X										
59	P	X										
60	P											X
61	K											X
62	P						X			X		
63	B											X
64	B				X		X					
65	O											X
66	O											X
67	O											X
68	P							X				
69	F											X
70	M											X
71	P											X
72	B						X					X
73	B	X										
74	M			X					X			
75	F	X										
76	F											X
77	O							X				
78	P	X										
79	B	X										
80	B											X
81	B											X
82	B					X						X
83	B						X					
84	P				X							
85	B										X	
86	B				X		X					
87	B									X		
88	P										X	
89	P	X										
90	P								X			

CROSS REFERENCE CHART

Resource Number	Type of Resource	Occupational Area G	1	2	3	4	5	6	7	8	9	10
91	P									X		
92	B	X										
93	B											X
94	B						X					
95	P							X				
96	P		X							X		
97	B	X										
98	F											X
99	P			X					X			
100	P				X		X					
101	P											X
102	P											X
103	P											X
104	P											X
105	P	X										
106	P											X
107	O											X
108	P				X							
109	P	X										
110	K	X										
111	K	X										
112	P	X										
113	P	X										
114	P	X										
115	B						X					
116	K	X										
117	P		X									
118	P										X	X
119	B				X		X					
120	P									X		
121	P		X							X		
122	P		X							X		
123	P				X		X					
124	P				X							X
125	P								X			
126	P				X						X	X
127	P									X		
128	B						X					
129	P											X
130	B			X								
131	P					X						
132	F					X						
133	P									X		X
134	P	X										
135	P	X										
136	B											X
137	B											X
138	B										X	
139	B	X										
140	B	X										
141	P	X										
142	P							X				
143	P									X		X
144	P							X				
145	P		X				X					
146	F				X		X					
147	P			X								
148	B					X						
149	B			X		X			X			
150	B			X		X			X			
151	B			X		X			X			
152	B					X						
153	B					X						
154	P					X						
155	K					X						
156	O	X										X
157	B											
158	B											X
159	O										X	
160	B											X
161	F											X
162	M					X						
163	K	X										
164	F											X
165	B					X	X					
166	P						X					
167	B					X	X					
168	P						X					
169	B						X					
170	B						X					
171	B											X
172	F					X						
173	F							X				
174	F	X										
175	M							X				
176	B	X										
177	B	X										
178	P	X										
179	P	X										
180	F					X						

CROSS REFERENCE CHART

Resource Number	Type of Resource	Occupational Area										
		G	1	2	3	4	5	6	7	8	9	10
181	P	X										
182	P	X										
183	P							X				
184	P				X							
185	B					X			X			
186	B					X			X			
187	O											X
188	B	X										
189	M			X								
190	B	X										
191	K									X		X
192	F	X										
193	P										X	
194	B	X										
195	B											X
196	P											X
197	P											X
198	O											X
199	P				X							
200	B	X										
201	F											X
202	P									X		
203	F											X
204	B									X		
205	P					X						
206	P			X					X			
207	P							X				
208	P					X						
209	F		X									
210	B										X	X
211	B	X										
212	F				X							
213	F			X					X			
214	F							X				
215	P	X										
216	F							X				
217	F							X				
218	B			X								
219	B						X					X
220	F					X						
221	B											X
222	P			X			X	X				X
223	F										X	
224	F									X		
225	F	X										

Resource Number	Type of Resource	Occupational Area										
		G	1	2	3	4	5	6	7	8	9	10
226	B								X			
227	F	X										
228	B	X										
229	B	X										
230	P	X										
231	B										X	
232	B											X
233	P	X										
234	B											X
235	B											X
236	B											X
237	B											X
238	B				X		X		X			
239	M					X						
240	O					X						
241	B	X										
242	F		X									
243	B	X										
244	B	X										
245	B						X				X	
246	B										X	
247	B					X					X	
248	P			X		X						
249	B					X						
250	B						X					X
251	B											X
252	B											X
253	B	X										
254	M					X						
255	B											X
256	B							X				
257	P							X				
258	P							X				
259	B											X
260	B						X					X
261	B	X										
262	B	X										
263	B					X						
264	B											X
265	B				X		X					
266	F									X		X
267	B	X										
268	F							X				
269	F											X
270	P	X										

CROSS REFERENCE CHART

Resource Number	Type of Resource	G	1	2	3	4	5	6	7	8	9	10
271	P	X										
272	P					X						
273	F	X										
274	F	X										
275	P							X				
276	P							X				
277	F							X				
278	F	X						X				
279	B		X									X
280	B											X
281	B											X
282	P		X									
283	P		X									
284	O	X										
285	F	X		X								
286	B											X
287	O					X						
288	F	X										
289	P	X										
290	F									X		
291	O											X
292	F					X						
293	B					X						
294	B											X
295	K	X										
296	K	X										
297	B	X										
298	M	X										
299	F	X										
300	F	X										
301	P						X					
302	P											X
303	P							X				
304	P			X						X		X
305	P											X
306	P		X							X		
307	K							X				
308	P							X				
309	P	X										
310	F	X										
311	B						X			X		
312	F			X								
313	B							X				
314	B											X
315	B											X

Resource Number	Type of Resource	G	1	2	3	4	5	6	7	8	9	10
316	B							X				
317	B	X										
318	P					X						
319	B					X						
320	B											X
321	B	X										
322	F									X		
323	F										X	
324	P						X					
325	F						X					
326	F											X
327	P											X
328	K	X										
329	B	X										
330	B							X				
331	B								X			
332	B											X
333	O					X						
334	B										X	
335	F	X										
336	B									X		
337	P				X							
338	B											X
339	B											X
340	M					X						
341	P								X			
342	B			X								
343	F					X					X	
344	O					X						
345	O					X	X					
346	O								X			
347	B					X						
348	B				X		X					
349	F							X				
350	B											X
351	B					X						
352	B											X
353	B											X
354	F		X			X						
355	B	X										
356	B				X		X					
357	P					X			X			
358	P			X		X						
359	B	X										
360	P	X										

CROSS REFERENCE CHART

Resource Number	Type of Resource	Occupational Area										
		G	1	2	3	4	5	6	7	8	9	10
361	P				X							
362	F											X
363	O								X			
364	O								X			
365	O								X			
366	O											X
367	O										X	
368	F								X			
369	O										X	
370	P								X			
371	O											X
372	P				X							
373	O	X										
374	O			X		X			X			
375	O					X					X	
376	O							X				
377	O									X		X
378	P										X	
379	P										X	
380	P										X	
381	T											X
382	P							X				
383	M			X								
384	F							X				
385	B	X										
386	B							X				
387	B								X			
388	N					X	X					
389	K	X										
390	B	X										
391	P	X										
392	B	X										
393	F											X
394	B	X										
395	B									X		X
396	P					X			X			
397	B	X										
398	O							X				
399	O					X						
400	O										X	
401	P		X					X				
402	B	X										
403	P	X										
404	B	X										
405	P										X	

Resource Number	Type of Resource	Occupational Area										
		G	1	2	3	4	5	6	7	8	9	10
406	F	X										
407	P	X										
408	P		X									
409	P											X
410	M	X										
411	P								X			
412	P	X										
413	F							X				
414	F											X
415	P										X	X
416	F										X	X
417	O	X										
418	B										X	
419	B									X		X
420	B							X				
421	B					X					X	
422	P											X
423	F						X					
424	P						X					
425	P						X					
426	P						X					
427	F									X		
428	B						X					
429	P	X										
430	P											X
431	F											X
432	B											X
433	F											X
434	A											X
435	F											X
436	B											X
437	B											X
438	B									X		
439	B					X						X
440	B											X
441	B											X
442	P											X
443	B						X					X
444	B					X						X
445	F							X				X
446	P						X					
447	P	X										
448	F		X									
449	B	X										
450	A								X		X	

CROSS REFERENCE CHART

Resource Number	Type of Resource	G	1	2	3	4	5	6	7	8	9	10
451	B					X						
452	B											X
453	P	X										
454	B											X
455	B						X					
456	B	X										
457	O					X						
458	P								X			
459	B	X										
460	B	X										
461	B	X										
462	B											
463	B											X
464	B						X					
465	F											X
466	P								X			
467	B	X										
468	F					X						
469	B					X						X
470	B	X										
471	P				X		X					
472	O		X									
473	B						X					
474	B											X
475	B			X								
476	O											X
477	F		X									
478	B	X										
479	P					X						
480	P	X										
481	B										X	
482	O	X										
483	F											X
484	P		X							X		
485	B											X
486	F	X										
487	B											X
488	B							X				
489	P										X	
490	P										X	
491	B	X										
492	A											X
493	P											X
494	F	X										
495	B	X										

Resource Number	Type of Resource	G	1	2	3	4	5	6	7	8	9	10
496	B	X										
497	B											X
498	B	X										
499	O					X						
500	F											X
501	B							X				
502	B	X										
503	P					X						
504	P			X								X
505	O				X				X			
506	F											X
507	B					X						
508	F					X						
509	P							X				
510	O						X					
511	P								X			
512	F						X					
513	B					X			X			
514	F	X										
515	P	X										
516	B											X
517	O					X						
518	F											
519	M	X										
520	P							X				
521	P	X										
522	M			X								
523	B								X			
524	P	X										
525	M						X					
526	O	X										
527	F										X	
528	F						X				X	
529	F		X									
530	F											X
531	M							X				
532	F											X
533	F											X
534	F											X
535	P											X
536	T	X										
537	T											X
538	P											X
539	B			X					X			
540	P			X		X						

CROSS REFERENCE CHART

Resource Number	Type of Resource	Occupational Area										
		G	1	2	3	4	5	6	7	8	9	10
541	O											X
542	P		X									
543	B											X
544	O		X							X		
545	P	X										
546	O	X										
547	B											X
548	P	X										X
549	P											X
550	P					X						
551	P		X									X
552	O										X	
553	P	X										
554	O										X	
555	O											X
556	O	X										
557	M						X					
558	P		X								X	
559	A							X				
560	O	X										
561	P	X										
562	P	X										
563	P	X										
564	O	X										
565	B											X
566	F											X
567	O				X							
568	P	X										
569	O				X							
570	B								X			
571	P											X
572	P											X
573	B	X										
574	B			X								
575	M					X						
576	P	X										
577	B											X
578	B											X
579	K							X				
580	P	X										
581	P					X						
582	F							X				
583	P	X										
584	P											X
585	P					X					X	
586	P					X					X	
587	P											X
588	P											X
589	B					X						
590	P					X						
591	B					X						
592	B	X										

BIBLIOGRAPHY

1-P "ABC's of Teaching in Elementary School," NEA Publications, Sales Section 87, 1201 16th Street, N.W., Washington, D.C.

2-B A Career as a CPA, AICPA, New York, New York

3-P "A Career in Traffic Engineering," Institute of Traffic Engineers, 2029 "K" Street, N.W., Washington, D.C. 20006

4-F "A Career in Bacteriology," Ohio State University, College of Agriculture and Home Economics, 2120 Fyffe Road, Columbus, Ohio 43210

5-F "A Guide for Cooperative Vocational Education," College of Education, Division of Vocational and Technical Education, University of Minnesota, Minneapolis, Minnesota

6-F "A Guide for Developmental Vocational Guidance K Through 12," The Oklahoma State Department of Education

7-B "A Job with the Forest Service," #843, U.S. Department of Agriculture, Forest Service, Washington, D.C.

8-F "A Step Ahead," 1964, 12½ minutes, Ohio State University, College of Agriculture and Home Economics, 2120 Fyffe Road, Columbus, Ohio 43210

9-P "A Survey of Photographic Instruction," Eastman Kodak Company, Department 841, Rochester, New York

10-F "A Place to Get Well," Association Films, 512 Burlington Avenue, LaGrange, Illinois 60528

11-F "A Special Breed," Jim Handey Organization, Film Distributing Department, 2821 East Grand Boulevard, Detroit, Michigan 48211

12-O A-V Media and Equipment Division, Twyman Films, Inc., 329 Salem Avenue, Dayton, Ohio 45401

13-B Abel, Charles, Photography: Career and Opportunities for You, Clinton, Phildelphia, Pennsylvania, 1961

14-B Advertising Age, 740 Rush Street, Chicago, Illinois 60611

15-M Administrative Management, P.O. Box 13202, Philadelphia, Pennsylvania 19101

16-O Addressograph Multigraph Corporation, World Headquarters, 1200 Babbitt Road, Cleveland, Ohio 44177

17-B Adler, Kenneth, Pathway to Your Future - The Job Resume and Letter of Application, Bellman Publication Company, P.O. Box 172, Cambridge, Massachusetts 02138, 1971

18-F "Adventures of the Asterick," 2-160, Local School Resource Center

19-F "African Rhythms," Associate, Films 512 Burlington Avenue, LaGrange, Illinois 60525

20-P "After High School, What?" R.L. Polk and Company, 2001 Elm Hill Pike, Nashville, Tennessee, 1969

21-O Airline Ground Transportation Association, 1201 "K" Street, N.W., Washington, D.C.

22-P Airline Pilots Association, Washington, D.C.

23-F "Air Pollution and Cars," General Motors Corporation, Public Relations Staff, Film Library, General Motors Building, Detroit, Michigan 48202

24-O Air Transport Association of America, 100 Connecticut Avenue, N.W., Washington, D.C. 20036

25-B Alexander, Mary Jean, Decorating Made Simple, Doubleday and Company, Inc, New York 11530

26-B Almon, Joseph J., Visualized-Basic-Mechanical Drawing, The Bruce Publishing Company, Milwaukee, Wisconsin

27-P American Advertising Council, Madison Avenue, New York, New York

28-M American Automobile Association Magazine

29-O American Banking Association, 90 Park Avenue, New York, New York, 10016

30-P American Broadcasting Company, New York, New York

31-B American Congress of Surveying and Mapping, Washington, D.C.

32-O American Council on Advertisement, Madison Avenue, New York, New York

33-P American Council on Educational Journalism, University of Missouri, Columbia, Missouri 65200

34-B American Culinary Federation, *Apprenticeship Manual for Culinarians*, 1966

35-P American Gas Association, 605 Third Avenue, New York, New York

36-P American Geological Association, Washington, D.C.

37-P American Historical Society, 400 "A" Street, S.E., Washington, D.C.

38-O American Hospital Association, 840 North Shore Drive, Chicago, Illinois 60611

39-P American Hotel and Motel Association, 221 West 57th Street New York, New York

40-P American Institute of Biological Sciences, 200 "P" Street, N.W., Washington, D.C.

41-O American Institute of Graphic Arts, 1059 3rd Street, New York, New York 10022

42-P American Iron and Steel Industries, New York, New York

43-P American Medical Association, Washington, D.C.

44-P American Newspaper Guild, Research Department, 1126 16th Street, S.W., Washington, D.C. 20036

45-P American Petroleum Industry, New York, New York

46-F American Restaurant Institute, 1414 Eye Street, N.W., Washington, D.C.

47-O American Society of Radiologic Technologists, 557 South Main Street, Fond Dulac, Wisconsin 54935

48-O American Textile Manufacturing Company, 1501 Johnston Building, Charlotte, North Carolina 28202

49-P American Trotters Association

50-P American Veterinarian Medical Association, 600 South Michigan Avenue, Chicago, Illinois

51-O American Vocational Association, 1510 "M" Street, N.W., Washington, D.C. 20005

52-P American Welding Society, 345 East 47th Street, New York, New York 10017

53-O Ames Company Division/Miles Laboratories, Elkhart, Indiana 46514

54-F "An Age is Born," Machine Tool Industry, Washington, D.C. 20420

55-P "An Occupational Guide to Public Relations," Public Relations Society of America, Inc, 845 Third Avenue, New York, New York 10022

56-F "Anatomy of a Road," General Motors Corporation, Public Relations Staff, Film Library, General Motors Building, Detroit, Michigan 48202

57-B Andrews, *About Her*, McGraw-Hill Book Company, Manchester Road, Manchester, Missouri

58-B Andrews, *About Him*, McGraw-Hill Book Company, Manchester Road, Manchester, Missouri

59-P Angel, Juvenal L., "Student's Guide to Occupational Opportunities and Their Lifetime Earnings," Simon and Schuster, Inc., Regents Publishing Company, 200 Park Avenue, South, New York, New York 10003

60-P Apprenticeship Programs from Department of Labor in Rail Road Industry, Washington, D.C.

61-K Arc Welding Education Kit, Lincoln Electric Company, 33787 St. Clair Avenue, Cleveland, Ohio

62-P "Archeology as a Career," Archaeology, Vol. 14

63-B Arthur, Ralph, Gilbert, Burke, Dalzell, Townsend, Architectural and Building Trades Dictionary, American Technical Society, Chicago, Illinois

64-B "Art Related," National Association of Schools, One Dupont Circle, N.W., Washington, D.C. 20036

65-O Associated General Contractor of America, 2077 Embury Park Road, Dayton, Ohio

66-O Associated Glass and Pottery Manufacturing, Inc., P. O. Box 510, Westin, West Virginia 26452

67-O Association of American Railroads Transportation Building, 815 17th Street, N.W., Washington, D.C. 20008

68-P Association of University Programs in Hospital Administration, 1642 East 5th Street, Chicago, Illinois

69-F "At the Forefront with Copper," Copper and Brass Research Association, 16 MM

70-M "Automated Systems Analysis," Datamation, August 15, 1971

71-P Automobile Manufacturers Association, Detroit, Michigan

72-B Baer, Charles J., Electrical and Electronics Drawing, McGraw-Hill Book Company

73-B Baer, Max F. and Roeber, Edward C., Occupational Information, Science Research Associates, Inc., Chicago, Illinois

74-M Balance Sheet, South-Western Publishing, Cincinnati, Ohio

75-F "Bartlett and Sons," Modern Talking Pictures, Inc., 9 Garfield Place, Cincinnati, Ohio 45202

76-F "Be An A-C-E Driver," The Jim Handy Organization, 2821 East Grand Boulevard, Detroit, Michigan

77-O Beauty and Barber Supply Institute, Inc., 46 West 46th Street, New York, New York

78-P "Behavioral Objectives for Career Development," University of Minnesota, College of Education, Minneapolis, Minnesota

79-B Belman and Shirtzer, "My Career Guidebook," Bruce Publishing Company, Milwaukee, Wisconsin, 1967

80-B Berg, Edward, Mechanical Drawing, The Bruce Publishing Company, Milwaukee, Wisconsin

81-B Berg, Edward, Mechanical Drawing I, Mechanical Drawing II, The Bruce Publishing Company, Milwaukee, Wisconsin

82-B Berg, Norbert J., Wetcleaning, National Institute of Drycleaning, Silver Spring, Maryland

83-B Beryle, J. Barr., Wonders, Warriors, and Beasts Abounding, Doubleday and Company, Inc., New York, New York 11530

84-P "Bibliography of Photo Career," Eastman Kodak Company, Department 841, Rochester, New York

85-B Biegeleisen, J., Careers and Opportunities in Teaching, E.P. Dutton and Company, Inc., New York, New York, 1969

86-B Biegeleisen, J., Careers in Commercial Art, E.P. Dutton and Company, Inc., New York, New York, 1952

87-B Binder, Otto, Careers in Space, Walker and Company, New York, New York, 1963, 308 pp.

88-P "Biologist, Should I be A," New York Life Insurance Company, Career Information, Box 51, Madison Square Station, New York, New York 10010

89-P B'Nai Brith Vocational Service, 145 East 32nd Street, New York, New York 10016

90-O Book Service, American Public Health Association, New York, New York

91-P "Botany as a Profession," Office of the Secretary, Botanical Society of America, Department of Botany, Rutgers University, New Brunswick, New Jersey 08903

92-B Bowles, Frank H., How to Get into College, E.P. Dutton and Company, Inc., New York, New York, 1963

93-B Bradley, James J., In Automative Service, Richard Rosen Press, Inc., New York, New York, 1968, 138 pp.

94-B Brill, Reginald, Art as a Career, B.T. Batsford, Inc., London, England, 1962

95-P Bureau of Health, Professional Education and Manpower Training, National Institute of Health, Bethesda, Maryland

96-P Bureau of Land Management, Denver, Colorado

97-B Burt, Samuel and Lessinger, Leon N., Volunteer Industry Involvement in Public Education, Heath Lexington Books, D.C. Heath and Company, Lexington, Massachusetts

98-F Cable Surface Wiring, Electrical Entrance Non-metallic Cable Fittings, Order No. OE.337, Price $30.50, U.S. Government Films, National Audio Visual Center, Washington, D.C. 20409

99-P "Camera and Photo Supply Shop Management as a Career," Institute for Research, 537 South Dearborn Street, Chicago, Illinois 60605, $1.00

100-P "Cameras and Careers," Eastman Kodak Company, Rochester, New York

101-P "Can I be a Craftsman?" Public Relations Staff, General Motors, Detroit, Michigan

102-P "Can I be a Draftsman?" Public Relations Staff, General Motors, Detroit, Michigan

103-P "Can I be an Engineer?" Educational Relations, General Electric Company, Ossining, New York 10562

104-P "Can I be a Technician?" Department of Public Relations, General Motors Corporation, Detroit, Michigan

105-P "Can I Get the Job?" Department of Public Relations, General Motors Corporation, Detroit, Michigan 48202

106-P "Can I Make the Production Team?" Department of Public Relations, General Motors Corporation, Detroit, Michigan 48202

107-O Can Manufacturing Institute, Inc., 821 15th Street, N.W., Washington, D.C. 20005

108-P "Career as a Newspaper, Magazine, and TV News Photographer," Institute for Research, 537 South Dearborn Street, Chicago, Illinois 60605, approximately $1.00

109-P "Career Facts About Veterinary Medicine," American Veterinary Medical Association, 600 South Michigan, Chicago, Illinois 60605

110-K "Career Games," Career Games Laboratory, Educational Progress Corporation, 8538 East 41st Street, Tulsa, Oklahoma 74145

111-K Career Guidance Kit, Careers, Inc., Largo, Florida, approximately $100.

112-P Career Information Service, Bureau of Vocational Education, Newton Public Schools, Newton, Massachusetts

113-P "Career Information Service," New York Life Insurance Company, Box 51, Madison Square Station, New York, New York 10010

114-P "Career Opportunities," J.G. Ferguson Publishing Company, Chicago, Illinois

115-B Careers and Opportunities in Music, Alan Rick, E.P. Dulton and Company

116-K "Careers Desk-top Kit," Careers, Inc., P.O. Box 135, Largo, Florida 33540, approximately $125.00

117-P "Careers in Agriculture," Vocational Agriculture Service, College of Agriculture, Ohio State University

118-P "Careers in Architecture," 1735 New York Avenue, N.W., Washington, D.C.

119-B Careers in Art, Industrial Design Society of America, Guide to Art Studies, 60 West 55th Street, New York, New York 11021

120-P "Careers in Biochemistry," American Society of Biological Chemists, 9650 Wisconsin Avenue, Washington, D.C.

121-P "Careers in Conservation," Soil Conservation Society of America, Regional Technical Service Center, 134 South 12th Street, Lincoln, Nebraska 69508

122-P "Careers in Forestry," U.S. Forest Service, Superintendent of Documents, U.S. Printing Office, Washington, D.C.

123-P "Careers in Photographic Science and Engineering," Rochester Institute of Technology, P.O. Box 3408, Rochester, New York

124-P "Careers in Radio," National Association of Broadcasters, 1771 "N" Street, N.W., Washington, D.C. 20036

125-P "Careers in Retailing and Marketing," American Vocational Journal, Readers Service Department, P.O. Box 2553, Clinton, Iowa 52732

126-P "Careers in Television," National Association of Broadcasters, 1771 "N" Street, N.W., Washington, D.C. 20036

127-P "Careers in Science," Science Research Associates, 259 East Erie, Chicago, Illinois

128-B Carlsen, Darvey E., Graphic Arts, Charles A. Bennett Company, Inc., Peoria, Illinois

129-P "Carpentry As A Career," National Lumber Manufacturers Association

130-B Carroll, John M., Careers and Opportunities in Computer Science, E.P. Dutton and Company, Inc., New York, New York, 1967

131-P "Changing Fashion Cycle of the Past 20 Year," Warner Slim Wear Linger's, Bridgeport, Connecticut

132-F Chefs de Cuisine Association of America, 132 West 48th Street, New York, New York 10036

133-P Chemical Specialties Manufacturers Association, 50 East 41st Street, New York, New York 10017

134-P "Choosing Your Occupation For High School Students," Bureau of Employment Services, Columbus, Ohio

135-P Chronicle Occupational Brief Service, Chronicle Guidance Publications, Inc., Moravia, New York 13118

136-B Cochran, Leslie H., Innovative Programs in Industrial Education, McKnight and McKnight Publishing Company, Bloomington, Illinois

137-B Cogoli, John E., Photo Offset Fundamentals, McKnight and McKnight Publishing Company, Bloomington, Illinois

138-B Cohn, Angelo, Careers in Public Planning and Administration, Henry Z. Walck, Inc., New York, New York, 1966

139-B College Catalog, Ohio State University, Columbus, Ohio

140-B College Catalog for Admission Procedure, Ohio University

141-P "College of Arts and Sciences," Vol. LXXV, No. 10, Ohio State University, 190 North Oval Drive, Columbus, Ohio, 1971

142-P "College of Dentistry," Vol. LXXV, No. 11, Ohio State University, 190 North Oval Drive, Columbus, Ohio, 1971

143-P "College of Engineering," Vol. LXXV, No. 18, Ohio State University, 190 North Oval Drive, Columbus, Ohio, 1971

144-P "College of Medicine," Vol. LXXV, No. 15, Ohio State University, 190 North Oval Drive, Columbus, Ohio, 1971

145-P "College of Veterinary Medicine," Vol. LXXV, No. 18, Ohio State University, 190 North Oval Drive, Columbus, Ohio, 1971

146-F "Color Photography," (TF5858), 1966, 16 MM Sound, 19 minutes, J.C. Penny Company, Inc., 330 West 34th Street, New York, New York

147-P Commercial Credit Company, Baltimore, Maryland, "Using Installment Credit"

148-B Cone, Sydney, In the Textile Industry, Richard Rosen Press, Inc., New York, New York, 1969, 160 pp.

149-B Consumer Credit, Felterman

150-B Consumer Economic Problems, Wilson, Eyster

151-B Consumer Economics, Wilhelms, Heimerd, Jelley

152-B Consumer Education: A Guide For Home Economics Teachers, State Department of Education, South Carolina

153-B Consumer Education Curriculum Guide for Ohio, Grades K-12, Ohio State Department of Education

154-P Consumer Reports, "Sleek Schemes to Sell You Things," September, 1956, "Textile Labeling Act Goes into Effect"

155-K "Consumer," Western Publishing Company, 150 Parish Drive, Wayne, New Jersey, 07470, approximately $30.00

156-O Cooperative Extension Service, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210

157-B Coover, Shriver L., *A First Course in Drawing and Blue Print Reading*, McGraw-Hill Book Company

158-B Coover, Shriver L.,
  a. *Programmed Blue Print Reading*
  b. *Introduction to Blue Print Reading*, Vol. I
  c. *Dimensioning*, Vol. II
  d. *Orthographic Interpretation*, Vol. I
  e. *Sectioning and Fasteners*, Vol. IV
  f. *Applied Blue Print Reading*, Vol. V
Webster Division, McGraw-Hill Book Company

159-O Council on Hotel, Restaurant Education, Statler Hall, Cornell University, Ithaca, New York

160-B Covington, C.H., *The Spotting Department*, National Institute of Drycleaning, Silver Spring, Maryland

161-F "Cutting and Threading Pipe by Hand," U.S. National Audio Visual Center, Nation Archives and Record Service, Washington, D.C. 20409

162-M Co-ed, "Fashion Artistry," March, 1965, "On Stage for a Fashion Show," March, 1965, page 19

163-K Craft Leadership Action Folio, Craft Educational Services, Inc., 100 Garfield Avenue, New London, Connecticut

164-F "Crafts Film," Modern Talking Picture Service, Inc., 9 Garfield Place, Cincinnati, Ohio 45202

165-B Craig, Hagel, Thompson and Rush Olga, "Homes with Character," D.C. Hath Company, Boston, Massachusetts, 1962

166-P "Creative Approaches to School Music," American Music Conference, 332 South Michigan Avenue, Chicago, Illinois

167-B Cutler, Katherine M., "How to Arrange Flowers for All Occasions," Doubleday, 1967

168-P "Dance News," 119 West 57th Street, New York, New York 10019

169-B Daliynaple, Jean; "Careers and Opportunities in Theater," E.P. Dutton and Company

170-B Daniels, Les; "Learning How to Paint in Oils," Doubleday and Company, Inc., New York, New York 11530

171-B Day, Richard; Practical Guide to Plumbing and Heating, Hawcett Haynes Printing Corporation, Louisville, Kentucky, 1968

172-F "Decorating for a Living," Association of Films, 347 Madison Avenue, New York, New York

173-F "Dental Assistants," S-81235 Filmloop, Job Opportunity Series, Encyclopedia Brittanica, Chicago, Illinois

174-F "Destination Safety," General Motors Films, General Motors Building, Detroit, Michigan 48202, free

175-M "Diary of Connie McGregor," Public Library of A.M.A., 535 North Dearborn, Chicago, Illinois 60610

176-B Dictionary of Education, C. V. Good, Second Edition, Published by McGraw-Hill, 1959

177-B Dictionary of Occupational Titles, U. S. Government Printing Office, Washington, D. C. 20402

178-P "Directory of Accredited Private Home Study Schools," National Home Study Council, 1601 18th Street, N. W., Washington, D. C. 20009

179-P "Directory of Transportation Education," American Trucking Association, Inc., 1616 "P" Street, N. W., Washington, D. C. 20036, 1968

180-F "Discovering Creative Patterns," Local Resource Center

181-P "Doors to Open," Connecticut Mutual Life Insruance Company, Hartford, Connecticut

182-P "Do's and Don't's for Mature Job Seekers," National Association of Manufacturers, 277 Park Avenue, New York, New York

183-P "Do You Want to Be a Nurse?" ANA-NLA Nursing Career Program, 10 Columbus Circle, New York, New York 10019

184-P Eastman Kodak Company, Rochester, New York,
a. Fundamentals of Photography
b. Color Filters and Kodak Films
c. How to Develop Films
d. How to Make Good Pictures

185-B "Economics in Action," Calderwood, Fersh

186-B "Economics, Principles and Problems," Murad

187-O Edison Electrical Institute, New York, New York

188-B Editors of Sterling, Is College for Me, Sterling Publishing Company, Inc., New York, New York

189-M "EDP Professionals Face a Buyer's Market," Business Automation, December 15, 1970

190-B Education and Training for the World of Work, A Vocational Program for the State of Michigan, W. Upjohn Institute for Employment Research, 300 South Westnedge Avenue, Kalamazoo, Michigan 49007

191-K Education Kit for Paper, The Mean Corporation, Talbot Tower, Dayton, Ohio 45402

192-F Educational Activities, Inc., P. O. Box 392, Freeport, New York

193-P Educational Director, National Restaurant Association, Chicago, Illinois

194-B Educator's Guide to Free Filmstrips, Educators Progress Service, Inc., 8538 East 41st Street, Tulsa, Oklahoma 74145

195-B Electrical Construction Wiring, American Technical Society, 848 East 58th Street, Chicago, Illinois 60637, approximately $7.75

196-P "Electricians," Occupational Brief 25, Science Reserach Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611

197-P "Electrical Engineering," "Mechanical Engineering," Civil Engineering," "Electro Engineering," Engineering Technology," Kent State University, 250 Franklin, Salem, Ohio 44460

198-O Electronic Industries Association, 2001 Eye Street, N. W., Washington, D. C. 20006

199-P Encyclopedia Britannica Educational Corporation,
119 Announcer Radio
119 Announcer Sports
119 Announcer Staff
119 Radio Broadcasting
119 Radio Operator
280 Radio and TV Announcers
347 Radio and TV Time Salesmen
296 Disc Jockeys

200-B Encyclopedia of Careers and Vocational Guidance, Doubleday and Company, Inc., Garden City, New York, 1967

201-F "Engineers in the Making," Genreal Motors Corporation, Public Relations Staff Film Library, General Motors Building, Detroit, Michigan 48202

202-P "Entomology," Entomological Society of America, 4603 Calvert Road, College Park, Maryland 20740

203-F "Excellence in Design," McDonnel Douglas Corporation, Film Library Department 92, Room 167, Building 2, P. O. Box 516, St. Louis, Missouri 63166

204-B Esterer, Arnulf K., Your Career in Chemistry, Julian Messner, Inc., 8 West 40th Street, New York, New York

205-P "Fabrics Buying," Agricultural Extension Service, Ohio State University. Columbus, Ohio 43210

206-P "Facts About the Ohio Business School Association," Ohio Business School Association

207-P "Fads, Myths, Quack and Our Health," Public Affairs Pamphlet #415, U.S. Department of Health, Education and Welfare, Washington, D.C.

208-P "Family Economics" A Curriculum Guide for Home Economics Education," Florida State Department of Education

209-F "Farming's Fabulous Future," 1965, 17 minutes, Ohio State University, College of Agriculture and Home Economics, 2120 Fyffe Road, Columbus, Ohio 43210

210-B Federal Aviation Authority, Washington, D.C., Books and Manuals

211-B Feingold and Swerdolf, Occupations and Careers, McGraw-Hill Book Company

212-F "Film Craft," Eastman Kodak Company, Rochester, New York

213-F Film Library, Public Relations and Advertising Department, Aetna Life and Casualty, 151 Famington Avenue, Hartford, Connecticut 06115

214-F Film Publications Catalogs, Pharmaceutical Manufacturers Association, 155 15th Street, Washington, D.C. 20005

215-P "Finding Your Job," U.S. Government Sources of Occupational Information

216-F "First Aid," A-V Media and Equipment Division, Tevyman Films, Inc., 329 Salem Avenue, Dayton, Ohio

217-F "First Aid Now," Red Cross or Local Public Library

218-B Fischer, George, Your Career in Computers, Meredith Press, New York, New York, 1968

219-B Fleming, Joseph W.; Barich, Dewey F.; Smith, L.C.; Applied Drawing and Sketching, American Technical Society, Chicago, Illinois

220-F "Floor Covering," National Retail Furniture, 666 Lake Shore Drive, Chicago, Illinois

221-B Fligor and Trimble, The Spotting Manual of the Drycleaning Industry, Revised Edition, The National Cleaner and Dyer, New York, New York

222-P Follett Vocational Reading Series, Lillian Lerner/M. Moller, National Association For Practical Nurse Educational and Service, 10 Columbus Circle, New York, New York
    a. "Follet Vocational Reading Series"
    b. "The Delco Sisters, Beauticians"
    c. "Practical Nursing"
    d. "Department Store Worker"
    e. "Automobile Mechanics"
    f. "Office Worker"

223-F "Foodservice," National Restaurant Association, 1530 North Lake Shore Drive, Chicago, Illinois 60610

224-F "Forestry Aids," #S81213 Film Loop, Encyclopedia Britannica Educational Corporation, 425 North Michigan Avenue, Chicago, Illinois 60611

225-F "Foundations for Occupational Planning," A7785 (5 Film Strips), Science Research Associates, 259 East Erie Street, Chicago, Illinois 60611

226-B Free Lance Magazine Photography, Chilton Books, 401 Walnut Street, Philadelphia, Pennsylvania

227-F "Fundamentals of Grooming," 3-M Company, 3-M Center, St. Paul, Minnesota

228-B Ganby and Elias, Know Yourself, Webster Division, McGraw-Hill Book Company, 330 West 42nd Street, New York, New York, 1966

229-B Gardner, Burleigh B. and Moore, David G., Human Relations in Industries, Richard D. Irwin, Inc., 1955

230-P GATB Profile Pamphlets, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

231-B Gay, Kathlyn, Careers in Social Service, Julian Messner, A Division of Simon and Schuster, Inc., 1 West 39th Street, New York, New York 10018

232-B *General Printing*, McKnight and McKnight Publishing Company, Bloomington, Illinois

233-P "Getting the Job," The Glidden Company, Cleveland, Ohio

234-B Giachino, J.W. and Beukema, Henry J., *American Technical Society's Freehand Sketching*, American Technical Society, Chicago, Illinois

235-B Giachino, J.W. and Beukema, Henry J., *Drafting and Graphics Engineering-Technical*, American Technical Society, Chicago, Illinois

236-B Giachino, J.W. and Beukema, Henry J., *Drafting Technology*, American Technical Society, Chicago, Illinois

237-B Giesecke, Mitchell, Spencer, and Hill, *Technical Drawing*, The MacMillan Company, Collier-MacMillan Limited, London, England

238-B Goldstein, Harriet and Goldstein, Betta. *Art in Everyday Life*, Macmillan Company

239-M Good Housekeeping, Better Homes and Gardens, Decorating Books

240-O Glamour Modeling Agency, Monique Modeling, Simplicity Pattern Company, Educational Division, 200 Madison Avenue, New York, New York

241-B Goldenthal, Allan B., *The Teenage Employment Guide*, Simon and Schuster, Inc., 200 Park Avenue, South, New York, New York 10003, 1969

242-F "Grain Merchants," 1966, 28 minutes. Ohio State University College of Agriculture and Home Economics, 2120 Fyffe Avenue, Columbus, Ohio 43210

243-B Graney, Maurice, *The Technical Institute*, 1964, The Center for Applied Research in Education, Inc.

244-B Grant, Venn. *Man, Education and Work*, 1964, American Council on Education

245-B Green, Michael. *Your Future in Interior Design*, Richard Rosen, New York, New York, 1963

246-B Grotz, George. *The Furniture Doctor*, Doubleday and Company Inc., School and Library Division, Garden City, New York 11530

247-B Grotz, George. *Instant Furniture Refinishing and Other Crafty Practices*, Doubleday and Company, Inc.

248-P "Guide to Federal Consumer Services," President's Commission of Consumer Interest

249-B *Guideline for Consumer Education*, Superintendent of Public Instruction, State of Illinois

250-B Haden, Donald. *Art Learner Guide*, Watson, Guptill, New York, New York, 1961

251-B Hagne, C. W. *Printing for the Schools*, Bruce Publishing Company, Milwaukee, Wisconsin

252-B *Handy Man's Electrical Repair Handbook*, Arco Publishing Company, 219 Park Avenue, New York, New York 1003, approximately $3.50

253-B *Handbook of Job Facts*, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611

254-M Harper's Bazaar, Harper's Bazaar, Inc., Publications, 572 Madison Avenue, New York, New York

255-B Harrison, Oval S., *Creative Mechanical Drawing*, 1966, American Technical Society, Chicago, Illinois

256-B Health Careers Guidebooks, National Health Council, 1790 Broadway, New York, New York 10019

257-P *Health Careers, Where to Study in Ohio, Kentucky and Indiana*. Compiled by Health Careers Association of Greater Cincinnati, 2400 Reading Road, Cincinnati, Ohio 45202

258-P Health Occupations, Trade and Industrial Service, Division of Vocational Education, State Office Building, Columbus, Ohio 43215

259-B Heilner, Lewis. *Introduction to Offset*

260-B Hepler, Donald E. and Wallace, Paul I. *Architecture--Drafting and Design*, McGraw-Hill Book Company

261-B Heywood, Anne. *There Is A Right Job for Every Woman*, Doubleday and Company, Inc., Garden City, New York, 1951

262-B *Hidden Persuaders*, Packard

263-B Hilhouse, Marian T. Dress Selection and Design, Macmillan Publishers, Inc., New York, New York, 1963

264-B Hodneth, Edward. So You Want to go into Industry, Harper and Row, New York, 1960, 158 pp.

265-B Hood, Robert E. Find A Career in Photography, Putnam and Sons, New York, 1959, 157 pp.

266-F "Horizons Deep, Horizons Wide," American Petroleum Institut

267-B Hopke, William E. The Encyclopedia of Careers and Vocational Guidance, two volumes, J. G. Ferguson Publishing Company

268-F "Horizons Unlimited," A.M.A. through Local Medical Society

269-F "Hot Water Systems," LC MO-76-700 835, Wilding Picture Productions, 1345 W. Argyle Street, Chicago, Illinois

270-P "How to Apply for a Job," Ohio Bureau of Employment Services, Vocational Planning Center, 108 East 7th Street, Cincinnati, Ohio 45202

271-P "How to Sell Your Job Talents," Ohio State Employment Service, Columbus, Ohio

272-P "How to Stage Your Fashion Show of Cotton," National Cotton Council, P.O. Box 12285, Memphis, Tennessee 38122

273-F "How Do You Feel," J. S. Latta Company, Inc., Set of 6 filmstrips

274-F "How Shall We Live," Scott Educational Division, Holyoke, Massachusetts, approximately $49.00

275-P "Husband, Father, Humanitarian, Specialist, Nurse," ANA-NLN Nursing Career Program 10 Columbus Circle, New York, New York 10019

276-P Hutchison, Chester S. "Occupation For Persons Trained in Agriculture," College of Agriculture and Home Economics, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210

277-F "I Am A Doctor," A.M.A. through local medical society

278-F "I'm No Fool with a Bicycle, Allstate Insurance Company, American Dental Assistant Association, Department of Education, 211 East Chicago, Chicago, Illinois 60611

279-B Implement Workers of American, Detroit, Michigan

280-B "In Plant Printer," 200 Madison Avenue, New York, New York 10016

281-B Interior Electrical Wiring - Residential, American Technical Society, 848 E. 58th Street, Chicago, Illinois 60637, approximately $5.25

282-P "In Your Service," AIB 136, U. S. Department of Agriculture Forest Service, Washington, D.C. 20250

283-P "Information About Our Forests and Products," Western Wood Products Association, Portland, Oregon

284-O International Business Machines, 111 West First Street, Dayton, Ohio 45402 (local address)

285-F International Film Bureau, Inc., 332 South Michigan Avenue, Chicago, Illinois, "Office Education Series I"

286-B International Union, United Automobile, Aerospace Workers of America, Washington, D.C.

287-O Institute of Food Technologist, Suite 2120 North LaSalle Street, Chicago, Illinois 60601

288-F "Interview," Vocational Guidance Tapes, J.G. Latta, Inc., P. O. Box 1276, 1502 Fourth Avenue, Huntington, West Virginia 25715

289-P "Introduction to Vocations," North Carolina Department of Public Instruction, Raleigh, North Carolina

290-F "It's A Tree Country," American Forest Institute, 1835 K Street, N.W., Washington, D. C. 20006

291-O Institute of Traffic Engineers, 2029 K. Street, N.W., Washington, D.C. 20005

292-F J. C. Penny Company, Inc., 330 West 34th Street, New York, New York
A. "Color As You See It"
B. "Designed for You"
C. "How to Buy Slips"
D. "How to Buy Shoes"
E. "How to Select Fabrics for Garments"

293-B Jarnow, Jeanett A. The Business of Fashion, John Wiley, New York, New York, 1965

294-B Jensen, C. H. and Mason, F. H. S. Drafting Fundamentals, McGraw-Hill Company of Canada Limited, Toronto, Canada

295-K "Job Exploration Kit," Science Research Associates, 257 E. Erie, Chicago, Illinois 60611

296-K Job Family Series, Science Research Associates, 257 E. Erie, Chicago, Illinois 60611

297-B Job Guide for Young Workers, U. S. Government Sources of Occupational Information

298-M "Job Hunting? You Could Hop the Pond," Datamation, August, 1971

299-F Job Opportunity, Encyclopedia Britannica, Education Corporation, Department 10A, 425 North Michigan Avenue, Chicago, Illinois 60611
A. "Sales Occupations," No. S-81249, approximately $22.00
B. "Service Occupations," No. S-81214, approximately $22.00
C. "Mechanics and Repairman," No. S-81221, " "
D. "Routeman," No. S-81211, approximately $22.00
E. "Stewardesses," No. S-81211, approximately $22.00
F. "Gasoline Service Occupations," No. S-81214, " "
G. "Customer Service Occupations," No. S-81240, " "
H. "Dispensing Opticians and Optical Laboratory Mechanics," No. S-81244, approximately $22.00
I. "Dental Assistants," No. S-81236, approximately $22.00
J. "Driving Occupations," No. S-81209, " "
K. "Local Transit Bus Driver," No. S-81212," "
L. "Dental Lab Technician," No. S-81217, " "
M. "Appliance Serviceman," No. S-81235, " "
N. "Television and Radio,"
O. "Service Technician," No. S-81224, " "
P. "Telephone and PBX Installers and Repairmen," No. S-81232 approximately $22.00
Q. "Automobile Mechanics," No. S-81224, " "
R. "Vending Machine," No. S-81226, approximately $22.00
S. "Automobile Body Repairman," No. S-81222, " "
T. "Photographers," No. S-81248, approximately $22.00

300-F Job Opportunity Series, Encyclopedia Britannica Educational Corporation, Department 10A, 425 North Michigan Avenue, Chicago, Illinois 60611
  a. Cooks and Waitresses, No. S-81228
  b. Waiters and Waitresses, No. S-81228
  c. Cosmetologists, No. S-81229
  d. Policeman, No. S-81215
  e. Fire Fighter, No. S-81214
  f. Sales Occupation, No. S-81249
  g. Stewardesses, No. S-81233
  h. Gasoline Service Station Attendant, No. S-81243
  i. Automobile Mechanics, No. S-81223

301-P "Jobs in Art," Science Research Associates, 259 East Erie Street, Chicago, Illinois

302-P "Jobs in Engineering," Science Research Associates, 259 East Erie Street, Chicago, Illinois

303-P "Jobs in Health," Job Family Series, #10, Science Research Associates, 259 East Erie Street, Chicago, Illinois

304-P "Jobs in Math," Family Job Series, Science Research Associates, 259 East Erie Street, Chicago, Illinois

305-P "Jobs in Mechanical Work," Job FamilySeries, Science Research Associates, 259 East Erie Street, Chicago, Illinois 60611

306-P "Jobs in Outdoor Work," No. 3, "Jobs in Unusual Occupations," No. 6, Science Research Associates, 57 West Grand Avenue, Chicago, Illinois

307-K "Jobs in the Performing Arts," #14, Job Family Series, Science Research Associates, 259 East Erie Street, Chicago, Illinois

308-P "Jobs in Psychology," Jobs Family Series, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois

309-P "Jobs in Unusual Occupations," Job Family Series, Science Research Associates, 259 East Erie Street, Chicago, Illinois

310-F "Jonah and the Highway," U.S. Steel, Pittsburgh Distribution Center, 525 William Penn Place, Pittsburgh, Pennsylvania

311-B Jones, Candy, Modeling and Other Glamour Careers, Harper and Row Publishers, New York, New York, 1969

312-F Journal Films, 909 West Diversey Parkway, Chicago, Illinois, "The Business Office Making Things Happen"

313-B Karch, Randolph R., *Graphic Arts Procedures*

314-B Karch, Randolph R., The Allied Trades, 4th Edition, Pitman Publishing Corporation, New York, New York

315-B Kasper, Sydney, Careers in the Building Trades, Henry Z. Walch, Inc., New York, New York, 1964, 127 pp.

316-B Kirle, Richard W., *Aim For a Job in a Hospital*, Richard Rosen Press, Inc., 29 East 21st Street, New York, New York 10010

317-B *Know Yourself*, Gavley and Elins, McGraw-Hill Book Company

318-P Kroehler Manufacturing Company, 666 Lake Shore Drive, Chicago, Illinois 60611
  a. "Let's Talk About Furniture Styling"
  b. "Let's Talk About Upholstery Fabrics"
  c. "Let's Talk About Furniture Quality and Construction"

319-B Kroh, Patricia, *A New World of Flower Arrangement*, Doubleday and Company, Inc., New York, New York 11530

320-B Laeham, Charles W., Lithographic Offset Press Operating, Lithographic Technical Foundation, Inc., August 1962, 131 East 39th Street, New York, New York

321-B Lass, Abraham, *How to Prepare for College*, Pocket Books, Inc., New York, New York, 1962

322-F "Lassie's Litter Bit," Modern Talking Films, 2323 New Hyde Pard Road, New Hyde Pard, New York 11040, free

323-F "Law Enforcement," Occupational Brief, Science Research Associates, 259 East Erie Street, Chicago, Illinois 60611

324-P Leisure League of America, 30 Rockerfeller Plaza, New York, New York, "Photography for Fun"

325-F "Leaonardo da Vinci," 2488, Giant of the Renaissance

326-F "Life Time and Wheels," Modern Talking Films, 2323 New Hyde Park Road, New Hyde Park, New York 11040, free

327-P "Linemen and Cable Splicers," Occupational Brief 28, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611

328-K Lifton's Widening Occupational Roles Kit, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois

329-B Lingenfelter, Mary, Vocations for Girls, Harcourt Brace and Company, New York, New York, 1951

330-B Liston, Robert A., Your Career in Civil Service, Julian Messner, A Division of Simon and Schuster, Inc., 1 West 39 Street, New York, New York 10018

331-B Logan, William and Moon, Helen, Facts About Merchandise, Prentice Hall, Englewood Cliffs, New Jersey, 1962

332-B Lux, Donald G. and Ray, Willis E., Co-directors, The World of Construction, McKnight and McKnight Publishing Company, Bloomington, Illinois

333-O McCalls Pattern Company, McCall Avenue, Dayton, Ohio

334-B McDonough, Thomas E., Your Future as a Guidance Counselor, Richard Rosen Press, Inc., New York, New York, 1967, 160 pp.

335-F McGraw-Hill Book Company, McGraw-Hill Films, 330 West 42nd Street, New York, New York 10036

336-B McHary, Ian, Design with Nature, Doubleday and Company, Inc., New York, New York 11530

337-P MGM, Hollywood, California, Communication Publications

338-B Machine Shop Measurements, Delmar Publication, Albany, New York

339-B Machine Tools Today, National Machine Tool Builders Association, 2139 Wisconsin Avenue, N.W., Washington, D.C.

340-M Mademoiselle, "Day in the Life of a Fashion Editor," Vol. 54, March 1962, pp. 172-4

341-P "Mail Order Selling," Earl H. Pruitt, Brookfield, Illinois, approximately $100.00

342-B Mann, Roland, Careers in Business Management, Henry Z. Walch, Inc., 1963, 108 pp.

343-F Manpower Development and Training Program Series, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., approximately 20¢ Each
  a. "Family Dinner Service Specialist" (OE-87007)
  b. "The Visiting Homemaker" (OE-87002)
  c. "The Homemaker's Assistant" (OE-87008)
  d. "Management Aide in Low Rent Public Housing Projects" (OE-87006)
  f. "Supervised Food Service Worker" (OE-87004)
  g. "Clothing Maintenance Specialist" (OE-87005)
  h. "Hotel and Motel Housekeeping Aide" (OE-87003)

344-O Manufacturing Institutes of Interior Design, 673 Fifth Avenue, New York, New York

345-O Manufacturing Jewelers and Silversmiths of America, Providence, Rhode Island

346-O Manufacturing Jewelry Sale Association, 58 Potter Street, Craston, Rhode Island

347-B Margolis, Adele P., How to Design Your Own Dress Patterns, Doubleday and Company, Inc., School and Library Division, Garden City, New York 11530

348-B Marinaccio, A., Exploring the Graphic Arts, D. Van Nostrand Company, Inc., Princeton, New Jersey

349-F "Matter of Opportunity," New - All Black Cast, A.M.A. through Local Medical Association

350-F "Medical Assistant, The," American Association of Medical Assistants, 510 North Dearborn, Chicago, Illinois

351-B Men of Purpose, Cincinnati Milling Machine, Cincinnati, Ohio

352-B Michelsen, Edna N., Remembering the Years, National Institute of Drycleaning, Silver Spring Maryland

353-B Nicholson, Jones, and Baughman, Blueprint Reading, Nostrand Company, Inc., Princeton, New Jersey

354-F "Milk and the Multitude," 1967, The College of Agriculture and Home Economics, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210

355-B Miles, Walton, Design for Craftiness, Doubleday and Company, Inc., New York, New York 11530

356-B Miller, Thomas and Brummitt, Wegelt, *This is Photography*, Doubleday and Company, Inc., New York, New York 11530

357-P "Model," Chronicle and Guidance Publications, 1953

358-P "Money and Banking in the American Economy," Council for Advancement of Secondary Education, 1201 16th Street, Washington, D. C. 20406

359-B "Motion Picture Catalog," 1970, General Motors, Detroit, Michigan 48202

360-P "Motion Pictures Herald," 1270 Sixth Street, New York, New York 10020

361-P "Motion Picture Projectionist," Chronicle, Occupational Chronicle Guidance Publications, Inc., Moravia, New York, approximately $35.00

362-F "Motion Study Helps Plumbing Assembly," Purdue University Audio Visual Center, Lafayette, Indiana 47907

363-O National Association of Discount Department Stores, 66 West 48th Street, New York, New York 10036

364-O National Association of Discount Merchants, 50 Central Park West, New York, New York 10036

365-O National Association of Mass Merchandising, 1612 "K" Street, N.W., Washington, D. C. 20006

366-O National Association of Plumbing, Heating, Cooling Contractors, 1016 20th Street, N.E., Washington, D. C. 20036

367-O National Association of Professional League (Baseball), 720 East Broad Street, Columbus, Ohio 43215

368-F National Association of Retail Grocers of the United States, 360 North Michigan, Chicago, Illinois 60601

369-O National Association of Social Workers, Washington, D. C.

370-P National Association of Variety Stores, 7646 West Devon Avenue, Chicago, Illinois

371-O National Automatic Sprinkler and Fire Control Association, New York, New York

372-P National Broadcasting Company, New York, New York

373-O National Committee on Employment of Youth, Eli E. Cohen, Executive Secretary, New York, New York 10016

374-O National Consumer Finance Association, 100 16th Street, N.W., Washington, D.C.

375-O National Food Service Association, P.O. Box 1932, Columbus, Ohio 43216

376-O National League for Nursing, Career Education, 10 Columbus Circle, New York, New York 10019

377-O National Petroleum Refiners Associations, Washington, D.C.

378-P National Committee on Household Employment, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036

379-P National Industrial Restaurant Association, 1700 Pennington Avenue, N.W., Washington, D.C. 20006

380-P National Restaurant Association, 221 West 5th Street, New York, New York 10018

381-T "Nomenclature of Milling Cutter," #6843, Visual Aids Exchange, 2355 Iowa Street, Cincinnati, Ohio

382-P "Horizons Unlimited," American Medical Association, 535 Northe Dearborn Street, Chicago, Illinois 60610

383-M "1971 Nationwide EDP Salaries Report," Business Automation, June, 1971

384-F "New Life for Lisa," Local Heart Association

385-B Norma L. Thieman, *Handbook of Job Facts*, Scientific Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611

386-B Nourse, Allan E, *So You Want to Be a Nurse*, Harper and Row, New York, New York

387-B Nystron, Paul H., *Economics of Retailing*, Vols. I & II, Ronald Press, 15 East 26th Street, New York, New York

388-B Obst, Frances, *Art and Design in Home Living*, MacMillan Company, 1963

389-K Occupational Exploration Kit, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois 60611

390-B *Occupational Guidance*, Finney Company, 3350 Gorham Avenue, Minneapolis, Minnesota 55426

391-P "Occupational Information and Vocational Guidance for Non-College Youth", University of Pittsburgh, Communication In Guidance Project, Pittsburgh Pennsylvania

392-B *Occupational Outlook Handbook*, U.S. Government Printing Office, Washington, D.C. 20402, 1968-69

393-F "Of Paper and Opportunity," American Paper and Pulp Association, 122 East 42nd Street, New York, New York 10017

394-B Ognibene, Gerald L., *Sources of Occupational Information*, Division of Guidance and Testing, State Department of Education, 751 Northwest Boulevard, Columbus, Ohio, September, 1970

395-P Ohio Department of Mines, State Office Building, 65 South Front Street, Columbus, Ohio

396-P Ohio Economics Associations, Columbus, Ohio

397-B Ohio Higher Education Notebook, Division of Guidance and Testing, 751 Northwest Boulevard, Columbus, Ohio 43215

398-O Ohio League for Nursing, Committee on Careers, 33 South James Road, Suite B-11, Columbus, Ohio 43213

399-O Ohio State University, Food Processing Center, Horticulture Department, Columbus, Ohio

400-O Ohio Trotting Association, Columbus, Ohio

401-P Ohio Veterinary School Pamphlets, Ohio State University, Columbus, Ohio

402-B Ohio Vocational Education Notebook, Division of Guidance and Testing, State Department of Education.
751 Northwest Boulevard, Columbus, Ohio 43212

403-P Ohio Employment Information Series, Bureau of Employment Service, Columbus, Ohio

404-B Olsen, James, Your Job and Your Future, Vol. II, McGraw-Hill, Webster Division

405-P "On the Job Training," "Other," American Hotel and Motel Association, 221 West 57th Street, New York, New York

406-F "On This Side of Life," Johnson and Johnson, Association Films, 512 Burlington, LaGrange, Illinois 60525

407-P "Operation Future," Kroger Company, General, Offices, Cincinnati, Ohio 45201

408-P "Opportunities for You in the Florist Industry," Society of American Florists, Sheraton Park Hotel, Washington, D.C.

409-P "Opportunities in the Trucking Industry," American Trucking Association, Inc., 1616 "P" Street, N.W., Washington, D.C. 20036

410-M Opportunities Unlimited, October, 1966, Indiana Health Careers, Inc., 1100 West Michigan Street, Indianapolis, Indiana

411-P Orent, Norman B., Skotch Corporation, C.E.T., P.O. Box 1010, Hollywood, California 90028
  a. "Merchandising Your Job Talents" 1969
  b. "Your Future in Marketing" approximately $.95

412-P Our World of Work, Career Information Kit, Science Research Associates, 259 East Erie Street, Chicago, Illinois 60611
  a. "How to Get a Job"
  b. "Your Personality and Your Job"
  c. "How to Get and Hold the Right Job"

413-F "Out on a Limb," Careers Committee, Alabama League for Nursing, Alabama State Nursing Association, Mitchell Film Production

414-F "Packaged Power for Pulpwood Profits," International Harvester, 180 North Michigan Street, Chicago, Illinois

415-P Painting and Decorating Contractors of America, 2625 West Peterson Avenue, Chicago, Illinois 60645

416-F "Painters and Paperhangers," S-81205, approximately $22.00, Job Opportunities Series, Encyclopedia Brittanica Education Corporation, 25 North Michigan Avenue, Chicago, Illinois 60611

417-O Paper Stationery and Tablet Manufacturing Association, Inc., Room 2301, 444 Madison Avenue, New York, New York

418-B Paradis, Adrian A., Librarians Wanted, David McKay, Inc., New York, New York, 1958, 273 pp.

419-B Pare, Loving, and Hill, Descriptive Geometry (For Mechanical Drawing). The MacMillan Company, New York New York

420-B Paul, Grace, Your Future in Medical Technology, Richard Rosen Press, Inc., New York, New York, 1962

421-B Pepis, Betty, Interior Decoration A to Z, Doubleday and Company, Inc., New York, New York 11530

422-P "Photoengraver," Chronicale Occupational Chronicle Guidance Publications, Inc., Moravia, New York, approximately $.35

423-F "Photographer," No. S-81205, Job Opportunities Series, Encyclopedia Brittanica Education Corporation, 25 North Michigan Avenue, Chicago, Illinois 60611

424-P Photographic Art and Science Foundations, Inc., 1090 Executive Way, Oak Leaf Commons, Des Plaines, Illinois

425-P "Photography as a Career," Photographic Arts and Science Foundation, 1090 Executive Way, Oak Leaf Commons, Des Plaines, Illinois, free

426-P "Photography in Your Future," Eastman Kodak Company, Department 841, Rochester, New York

427-F "Physics," The Norelco Series, McGraw-Hill Films, 327 West 41st Street, New York, New York 10036

428-B Pinney, Roy, Careers With A Camera, Phildelphia, Pennsylvania, Lippincott, 1964

429-P "Planned Training Your Future Security," U.S. Department of Labor, Washington, D.C. 20425

430-P "Plastics as Your Engineering Career," Society of Plastic Engineers,656 West Putman Avenue, Greenwich, Connecticut

431-F "Plumbing Aptitudes," Encyclopedia Britannica, Education Corporation, 425 North Michigan Avenue, Chicago, Illinois

432-B *Plumbing Installation and Repair*, Fredrich J. Drahue and Company, Chicago, Illinois

433-F "Plumbers and Pipe Fitters," Americans at Work Series, AFL-CIO Education Department, 815 16th Street, N.W., Washington, D.C. 20006, 16 MM, sound

434-A "Plumber, Pipe Fitter," Cassette, Classroom Distributors, Inc., 5610 Hollywood Boulevard

435-F "Plumbing," Your Life Series, LC-76-704274, Carl Mahnke Production, 215 East Third Street, Des Moines, Iowa 50309

436-B Pollack, Phillip, Careers and Opportunities in Engineering, E.P. Dutton and Co.

437-B Pollack, *Printing Careers and Opportunities for You*, Chilton Company Book Division, New York, New York

438-B Pollack, Phillip S., *Careers and Opportunities in Science*, E.P. Dutton and Company, Inc., 1968, 215 pp.

439-B Pouline, Clarence, *Tailoring Suits the Professional Way*, Charles A. Bennett Company, Peoria, Illinois

440-B *Practical Electric Wiring*, McGraw-Hill Book Company, Manchester Road, Manchester, Missouri 63011, approximately $8.50

441-B *Press Photography*, McCall, Floyd, and Rhode, MacMillan Company, 60 5th Avenue, New York, New York, approximately $5.95

442-P "Printer's Ink," 635 Madison Avenue, New York, New York 10022

443-B Printing Layout and Design, Delmar Publishers

444-B Procter and Gamble Company, Better Laundering, Cincinnati, Ohio

445-F "Production and Marketing," Audio-Visual Center, NET Film Service, Indiana University, Bloomington, Indiana 47401

446-P Program Materials on Medical Careers, American Medical Association, 535 Dearborn, Chicago, Illinois 60610

447-P "Project Able," American Institute for Research, Pittsburgh, Pennsylvania

448-F "Providers of Plenty," 1967, The College of Agriculture and Home Economics, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210

449-B Psychological Corporation, 304 East 45th Street, New York, New York 10017

450-A Public Relation Interview, V6726, Local Resource Center

451-B Rathbone, Lucy, Fashions and Fabrics, Houghton Mifflin Company, New York, New York, 1962

452-B Ray, J. Edgar, Graphic Architectural Drafting, McKnight and McKnight Publishing Company, Bloomington, Illinois

453-P Reading Materials, Science Research Associates, 259 East Erie, Chicago, Illinois

454-B Reed, F. Robert, What the Lithographer Should Know About Ink, Graphic Arts Technical Foundation, Inc., 4615 Forbes Avenue, Pittsburg, Pennsylvania 15213

455-B Reid, William J., Careers in Art, J. Weston Walch, Portland, Maine, 1970

456-B Resnick, William and Lottich, Philip, Your Future With or Without College, Bellman Publishing Company, Cambridge, Massachusetts

457-O Retail Jewelers of America, Inc., Washington, D.C.

458-P "Retailing," Fairchild Publications, 8 East 13th Street, New York, New York, approximately $2.00

459-B Rhodes, James A., Alternative to a Decadent Society, Charles E. Merrill, Publishing Company, Columbus, Ohio

460-B Rhodes, James A., Vocational Education and Guidance, Charles E. Merrill Publishing Company, Columbus, Ohio

461-B Richter, David, Occupational Essentials, Skills and Attitudes for Employment, Third Edition, H.C. Johnson Press, Vocational Education Division, Rockford, Illinois

462-B Rogers, W.G., A Picture is a Picture, Brace and World, New York, New York

463-B Rogers, William W. and Welton, Paul L., Blue Print Reading At Work, Morristown, New Jersey

464-B Roth, Claire, Art Careers, Henry Z. Walck, Inc., New York, New York, 1963

465-F "Roughing in Non-metallic Sheated Cable," U.S. Government Films, National Audio Visual Center, Washington, D.C. 20409

466-P "St. Louis Market News," Levy Publications Company, 1627 Locust, St. Louis, Missouri

467-B Sandman, Peter, The Unabashed Career Guide, MacMillan Company, 1969

468-F "Season Fashions," Sears, Roebuck and Company, Consumer Education Division, D/703, 925 South Hamson Avenue, Chicago, Illinois 60607

469-B Segal, W.C., Encyclopedia of Textiles, Prentice Hall, Englewood Cliffs, New Jersey

470-B Schaefer, Carl J. and Kaufman, Jacob J., New Directions for Vocational Education, Heath Lexington Books, D.C. Heath and Company, Lexington, Massachusetts

471-P Science Research Associates, 259 East Erie Street, Chicago, Illinois
  a. "Commercial and Industrial Photographers," #05990035, approximately $.40
  b. "Film Editors," #05990325, approximately $.40
  c. "Motion Picture Projectionist," #05990275, approxi-

mately $.40

d. "Photographic Manufacturing," #05990221, approximately $.40

e. "Press Photographers," #05990264, approximately $.40

472-O Scott and Pioneer Seed Company, Greenfield, Ohio

473-B Sedgwick, John P., Jr., Art Appreciation Made Simple, Doubleday and Company, Inc., New York, New York 11530

474-B Segal, Young, Drafting Made Easy, Doubleday and Company, Inc., New York, New York 11530

475-B Seligsohn, I.J., Your Career in Computer Programming, Julian Messner, A Division of Simon and Schuster, Inc., 1 West 39 Street, New York, New York

476-O "Share Your Knowledge," Craftsman Club, Local Organization

477-F "Sheepmen U.S.A.," 1964, 27½ minutes, The College of Agriculture and Home Economics, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210

478-B Shertzer, Bruce, Teacher's Guide to Group Vocational Guidance, Bellman Publishing Company

479-P "Shopping Hints, Better Dresses," Cooperative Extension Service, The Ohio State University, Columbus, Ohio

480-P "Social Security Agencies in the U.S.," Department of Health, Education and Welfare

481-B Society for Photographic Education, Maryland Institute, 1300 West Mt. Royal, Baltimore, Maryland

482-O Sources of Occupational Information, Division of Guidance and Testing, Ohio Department of Education, Columbus, Ohio

483-F "So You Want a Career In Building Trades," Vocational Film, 111 Euclid Avenue, Park Ridge, Illinois 60068

484-P "So You Want to be a Forester?" The American Forestry Association, 919 17th Street, N.W., Washington, D.C.

485-B Spencer, Henry C. and Dygdon, John T., Basic Technical Drawing, The MacMillan Company, New York, Collier-MacMillan Limited, London, England

486-F "Sportsmanlike Driver," American Automobile Association, McGraw-Hill Book Company, 330 West 42nd Street, New York, New York

487-B Stambler, Irwin, Find a Career in Engineering, G.P. Putman and Sons, New York, New York, 1962

488-B Starrett, Roberts, Find a Career in Medicine, G.P. Putman and Sons, New York, New York, 1960

489-P State Board of Barbering, Columbus, Ohio

490-P State Board of Cosmetology, Columbus, Ohio

491-B State Motor Vehicle Traffic Manual, Ohio Department of Highway Safety, Columbus, Ohio

492-A "Stationary Engineer," Interview VC749, Imperial International Learning, J.S. Latta Company, P.O. Box1276, Huntington, West Virginia 25715

493-P Steinike, Otto, Blueprint Reading, Checking, Testing, Parts I & II, McKnight and McKnight Publishing Company, Bloomington, Illinois

494-F Sterling Educational Films, 299 Falmus Drive, Costa Mesa, California

495-B Sterra, Wright, Rice, How to Improve Your Personality, McGraw-Hill Book Company

496-B Stone, Elna, How to Get a Job, Bruce Publishing Company, Milwaukee, Wisconsin

497-B Street, Cleland, and Earle, Drafting Fundamentals (Workbook), Fundamental Publishers, Box 188, College Station, Texas

498-B Suggested Teaching Learning Approaches for Career Development in the Curriculum, University of Minnesota, College of Education, Minneapolis, Minnesota

499-O Supermarket Institute, Inc., 200 East Ontario Street, Chicago, Illinois 60611

500-F "Surveyors," S-81247, Job Opportunities Series, Encyclopedia Brittanica Education Corporation, 25 North Michigan Avenue, Chicago, Illinois 60611, approx. $22.00

501-B Teacher Resource Manual, Training the Nurse Aide, American Hospital Association, 840 North Shore Drive, Chicago, Illinois 60611

502-B Teacher's Guide to Instructional Materials, Scott Educational Division, Holyoke, Massachusetts

503-P "Teaching Consumer Education and Financial Planning," Council for Family Finance Education

504-P "Technical, Clerical, and Trades Careers," Office of Personnel, Veterans Administration, Washington, D.C. 20420, V.A. Pamphlet 05-49, October 1970

505-O Television Bureau of Advertising, Rockefeller Plaza, New York, New York

506-F "The Changing Architecture of the Automobile Body," General Motors Corporation, Public Relations Staff Film Library, General Motor Building, Detroit, Michigan

507-B The Consumer Price Index: Technical Notes, Superintendent of Documents, U.S. Government Printing Office Washington, D.C.

508-F "The Designer," National Cotton Council, P.O. Box 12285, Memphis, Tennessee

509-P "The Dimensions of Dentistry," American Dental Association, 22 E. Superior, Chicago, Illinois 60611

510-O The Education Council of Graphic Arts Industry, Inc., Graphic Arts Technical Foundation, Inc., 4615 Forbes Avenue, Pittsburg, Pennsylvania 15213

511-P "The Effect of Trading Stamps of Retail Food Prices," Department of Agriculture Economics

512-F "The Human Body and How It Functions," A-V Media and Equipment Division, Teryman Films, Inc., 329 Salem Avenue, Dayton, Ohio 45401

513-B The Miracles of Credit, The Ohio Consumer Loan Association

514-F "The Most Important Business in the World," 1967, 18 minutes

515-P The Newspaper Friend, Inc., Box 300, New Jersey 08540

516-B The Ohio Apprenticeship Notebook, Division of Guidance and Testing, State Department of Education, Columbus, Ohio

517-O The Ohio State University, Food Processing Center, Horticulture Department, Columbus, Ohio

518-F "The Partner," The College of Agriculture and Home Economics, The Ohio State University, 2120 Fyffe Road, Columbus, Ohio 43210

519-M "The Personnel and Guidance Journal," October 1965, American Personnel and Guidance Association

520-P "The Rewards of Medicine Can Be Yours," American Medical Association, 535 North Dearborn, Chicago, Illinois 60611

521-P "The Role of the Secondary Schools in the Preparation of Youth for Employment," Institute for Research on Human Resources, The Pennsylvania State University, University Park, Pennsylvania

522-M The Secretary (Formerly Today's Secretary)

523-B "The Spender Syndrome," University of Wisconsin, Madison, Wisconsin

524-P "The Teenage Employment Guide," Simon and Schuster, Inc., 1 West 39th Street, New York, New York 10018

525-M Theater Arts, 333 Sixth Street, New York, New York

526-O Theta Sigma Phi, 106 Latern Lanes, Austin, Texas 78731

527-F "Thin Blue Line," Modern Talking Films, 2323 New Hyde Park Road, New Hyde Park, New York 11040, free

528-F "This is Our Town Meeting, Several of Our Cultural Needs," 2198, Local Resource Center

529-F "Three Farmers," Ohio State University, College of Agriculture and Home Economics, 2120 Fyffe Road, Columbus, Ohio, 28 minutes

530-F "Three Wire Service Entrance, Outdoor Meter Box, Control Box, Entrance Cable," U.S. Government Films, National Audio Visual Center, Washington, D.C.

531-M "Today's Health," 535 North Dearborn Street, Chicago, Illinois 60610

532-F "Toggle Switch Installation," The Home Electrical Wiring Series, Jim Handy Organization, 2821 East Grand Boulevard, Detroit, Michigan 48211

533-F "Toggle Switch Installation," Basic Home Electrical Wiring Series, International Communications Films, 1371 Reynolds, Avenue, Santa Ana, California 92705

534-F "Towards a Uniform Plumbing Code," U.S. National Audio-Visual Center, National Archives and Records Service, Washington, D.C. 20409

535-P "Training for Tomorrow," International Association of Machinists, Research Department, Washington, D.C.

536-T Transparencies: J.S. Latta, Inc., 1971, P.O. Box 1276, Huntington, West Virginia, Job Application and Job Interview Series III
  a. "Overview of Job Application and Job Interview," #JA1
  b. "Getting Acquainted with Yourself," #JA2
  c. "Social Security Tax Account Number," #JA3
  d. "Related Items for Classroom Discussion," #JA4
  e. "Preparation," #JA5
  f. "Compare Overview," #JA6
  g. "The Application Letter," #JA7
  h. "Data Sheet," #JA8
  i. "Card of Introduction," #JA9
  j. "Job Application Form," #JA10

537-T "Diagram of Complete Service Entrance," Basic Wiring Series, Minnesota Mining and Manufacturing Company, 2501 Hudson Road, St. Paul, Minnesota 55119

538-P "Trucks and Things You'll Want to Know About Them," American Trucking Association, Inc., 1616 "P" Street, N.W., Washington, D.C. 20036

539-B Understanding and Using Economics, Mayer

540-P "Understanding Taxes," Internal Revenue Service Office, Public Relations Office, Covington, Kentucky

541-O United Association of Journeyman and Apprentices of the Plumbing and Pipe Fitting Industry of the U.S. and Canada, Washington, D.C.

542-P U.S. Department of Agriculture, Washington, D.C.

543-B U.S. Department of Commerce, Establishing and Operating a Drycleaning Business, Washington, D.C., U.S. Government Printing Office

544-O U.S. Department of Fish and Wildlife, Washington, D.C.

545-P U.S. Department of Health, Education and Welfare, Washington, D.C.

546-O U.S. Department of Labor, George P. Shultz, Secretary, Manpower Administration

547-B U.S. Department of Labor, Job Descriptions for the Cleaning, Dyeing, and Pressing Industry, Washington, D.C., U.S. Government Printing Office

548-P U.S. Department of Mines, Washington,D.C.

549-P United States Department of Transportation, Washington, D.C.

550-P U.S. Department of Weights and Measures, Washington, D.C.

551-P United Mine Workers of America, Washington, D.C.

552-O U.S. Postal Services, Washington, D.C.

553-P USES, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

554-O United States Racing Association, speaker

555-O U.S. Steel Workers of America, Pittsburgh, Pennsylvania

556-O U.S. Treasury Office, District Office, Cincinnati, Ohio

557-M Variety, 154 West 46th Street, New York, New York 10036

558-P Veterinary Assistant Program, Columbus Technical Institute, Columbus, Ohio

559-A VG-743, Dental Hygienist, VG-735, Dental Technical, Imperial International Learning, J.S. Latta Company, Huntington, West Virginia 25715

560-O Visual Products Division, 3M Company, Box 3344, St. Paul, Minnesota 55101

561-P "Vocational Education and Occupations," Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.20402

562-P "Vocational Exploration in the Junior High Schools," Department of Guidance and Testing, Detroit, Michigan 48202

563-P "Vocational Guidance," Division of Guidance and Testing, Ohio Department of Education, Columbus, Ohio

564-O Vocational Monograph, No. 28, Quarrie Reference Library, 35 East Wacker Drive, Chicago, Illinois

565-B Wachs, Theodore, Careers in Engineering, Henry Z. Walch, Inc., 1964

566-F "Walls Without Welds," U.S. Steel Corporation, 525 William Penn Place, Pittsburgh, Pennsylvania 15230

567-O Warner Brothers, Hollywood, California, Communication Publications

568-P Western Electric, "Helpful Hints for Young Job Seekers"

569-O Western Union Company, Communication Publications, New York, New York

570-B Wewgate, Samson, Retail Merchandising, 7th Edition, Southwestern Publishing Company, Cincinnati, Ohio 45227

571-P "What's it Like to be an Engineer?" Educational Relations, General Electric Company, Ossining, New York 10562

572-P Wiggin, Dr. Richard G., "Composing in Space," McKnight and McKnight

573-B Winter, Elmer, *Women at Work*, Simon and Schuster, New York, New York, 1967

574-B Winter, Elmer, *Your Future as a Temporary Office Worker*, Richard Rosen Press, Inc., New York, New York, 1968

575-M Women's Wear Daily, Fairchild Publishers

576-P "Work," Foundations for Occupational Planning, Science Research Associates, 259 East Erie Street, Chicago, Illinois

577-B Wright, Lawrence S., *Drafting, Technical Communication*, McKnight and McKnight Publishing Company, Bloomington, Illinois

578-B Wyatt, William E., *General Architectural Drawing, Teachers Edition, Student Guide*, 87002-047-1, Charles A. Bennett Company, Inc., 809 West Detweiller Drive, Peoria, Illinois 61614

579-K X-Ray Technician Kit, Krumbolts and Johnson, School of Education, Stanford University, Stanford, California

580-P "You and Unions," Life Adjustment Booklet, Science Research Associates, 57 West Grand Avenue, Chicago, Illinois

581-P "You Are a Consumer of Clothing," Garrett, Metzer

582-F "You Can be a Doctor," "The Visiting Nurse," McGraw-Hill Films, 327 West 41st Street, New York, New York

583-P "Young Adults and Their Parents," Public Affairs Pamphlet No. 335, Public Affairs Commission, Inc., New York, New York

584-F Young America Film, Inc., 18 East 41st Street, New York, New York
  a. "Plumbing and Repairs"
  b. "Repairing Doors and Windows"

585-P "Your Future as a Dietitian," Richard Rosen Press, Inc., New York, New York

586-P "Your Future as a Home Economist," Richard Rosen Press, New York, New York

587-P "Your Future in Air Conditioning, Heating, and Refrigeration Engineering," Educational Committee of the American Society of Heating and Refrigeration and Air Conditioning Engineers, 345 East 45th Street, New York, New York 10017

588-P "Your Career in Chemical Engineering," Burnside Building, The Chemical Institute of Canada, 151 State Street, Ottawa, Ontario, Canada

589-B _Your Future in the Fashion World_, Fashion Group, Inc., Richard Rosen Press, Inc., New York, New York, 1960

590-P "Your Guide for Teaching Money Management," Household Finance Corporation

591-B "Your Marriage and Family Living," Landis

592-B _Youth Employment and Unemployment, Change, Challenge and Choice for the Pupil_, Personnel Administrator Londy and McKroll, Harvard Graduate School of Education, Cambridge, Massachusetts, 1965, pp. 157-163

Chapter VI

Recommendations

RECOMMENDATIONS AND IMPLICATIONS

Experience Centered Curriculum

Career Exploration Programs are not easy to implement into today's school curriculums. The basic reason is that today's secondary school curriculums are based on subject disciplines which do not have a beginning based on the individual student's needs and goals. They are not programs. There is no system for developing the student and preparing him for job entry into his chosen career. In most instances, students graduate from today's school curriculums with no skills and little knowledge of occupations and the skills required for various occupations. He drifts into a job and waits until he gets his "big break." He has little experience with work and little understanding of what he can do best. Therefore, changing the school curriculum to an experience centered curriculum based on individual student needs and goals is the keystone to making a Career Exploration Program operational and responsive to students' needs and goals.

Career Exploration - Part of the Curriculum

Time must be made available for students to have experience with occupations. All students must have an opportunity to have these experiences. Therefore, Career Exploration Programs must be part of the curriculum - not an add-on to a subject centered curriculum. The total curriculum must be permeated with a relationship to occupations of whatever is being taught.

Curriculum Advisory Boards

Curriculum advisory boards, comprised of teachers and school administrators must design a curriculum which is experience-centered. It must be determined how and what each discipline can relate to occupations. It must also be determined how disciplines can help other disciplines to relate to occupations. A synergistic approach must be applied to experience-centered curriculum development.

Coordination of Career Education

The three career education programs, extending through K-10, must be systemitized to provide over-all continuity of the programs. An overall program coordinator will be needed.

Program Evaluation

Some type of reliable and valid evaluation program must be developed and implemented to make sure that the program is helping the student make wise vocational choices through experiences. Student responses must be categorized and evaluated.

Objectives

The program is experience centered. Activities are a must. The activities must be of a nature that will aid the student to develop in an effort to meet his needs and goals. The type of development he needs must be identified. Behavioral objectives must be specified and well written. The behavioral objectives written in this guide book are NOT well written. It is extremely difficult for teachers to immediately write true behavioral objectives. Without quality behavioral objectives it will be difficult to evaluate the effectiveness of the program.

Vocational Guidance Program

The guidance department must move into the curriculum rather than be adjunct to it. The work being done by the guidance department must go beyond tests, brochures, and pamphlets. Whatever is being done in the curriculum must include a contribution from the guidance department for all students in helping them make wise vocational choices.

Teaching Methods

Discipline teachers will need to include a teaching step which applies the information being taught to occupations that rely heavily on a knowledge of what is being taught.

Non-Teaching Work Experience

Full-time occupations coordinators may be needed. They should have extensive background of work experience from occupations as well as teaching.

In-Service Teacher Training

Teachers will need to learn the concepts of C.E.P. They will need to build C.E.P. They will be the people who make C.E.P. successful. An investment in teacher preparation will have to be made if the program operates successfully.

Parents

The community will need to be informed of what C.E.P. is and what it is intended to do for youth. This will take well planned organization and communication.

Industry

Career Exploration Programs utilize hands-on experience which comes through jobs outside of school. Industry is not presently organized to absorb a mass of students for jobs and field trips. Close coordination of all school career programs and other neighboring schools will be necessary.

Simulation

There are three levels of activities: vicarious, simulated, and hands-on. Hands-on experiences are extremely difficult to achieve. Vicarious experiences are little more than imaginary. Simulated experiences remain as the best possible method of obtaining helpful experiences. Caution must be taken to design simulated activities that honestly yield experiences that can be used to make a wise vocational choice. It is easy to create activities that honestly yield experiences that can be used to make a wise vocational choice. It is easy to create activities; it is another thing to create simulation.

Integration of C.E.P. and Subjects

Career exploration can be done in subject disciplines. It is not difficult for teachers to see how the discipline relates to occupations or how the occupations are based on and use basic disciplines.

Block of Time

A block of time will need to be provided for occupational experiences, occupational counseling, and student research type activities.

Expanded Use of Facilities

It may be necessary to lengthen the school day or lengthen the number of school days per year.

Shared Exploration Equipment and Facilities

Schools may want to consider sharing exploration facilities and equipment within a geographical region.

Minimum State Standards

State Standards will need to be evaluated. Some changes may be necessitated.

Choice

Students must be allowed to make their own choice unless it is very obvious that their choice would be critically harmful to them. If this is a chance, then the program should be evaluated to eliminate such a risk.

Occupational Advisory Boards

Experienced persons in the occupations should be asked to help identify the important considerations of their occupation that would be helpful in designing a Career Exploration Program. This would include classroom information for the development of the six developmental areas in addition to occupational activities.

Further Study

Before Career Exploration Programs can become a reality for all Ohio youth in grades 9-10 much more planning and organizing will be needed. Five broad areas for further study are State School Standards; Funding of Facilities and Equipment; Curriculum Revision; Retraining of Administrators, Teachers, and Staff; and Informing the Community. These five areas were the topic of a two-day conference held at Kent State University under the direction of Dr. Charles Nichols, Chairman of the Department of Vocational Education. Participants in the conference were school administrators from Ohio Public Schools. A report of the conference can be found in Appendix

There will need to be local consideration to determine how the six developmental area activities can be blended with occupational activities in an effort to present a unified Career Exploration Program of experiences to the student.

There is a definite need for further study to determine what development students need in the total area of Career Exploration. Answers to the question of what the student really needs must be supplied. The summer workshops presented intuitive ideas. Are these ideas right? Do they encompass all that is necessary for student development within the area of Career Exploration?

At this time, simulated occupational activities appear to be good for bringing the student experiences with occupations. Which occupational experiences are necessary? How will these experiences be programmed? What skills must educators obtain in order to write good simulations? Industry and governmental agencies are writing simulation programs for training. How can their expertise be applied to Career Exploration Programs?

Career Exploration Programs need to involve the guidance department in the curriculum. A program needs to be designed to meet the need. What will the program be?

Colleges and universities must train future teachers to teach in an experience-centered program curriculum. How will colleges and universities do this?

Workshop participants (teachers) had difficulty writing hands-on activities. They did not list activities beyond the use of films, book, and role playing. Why?

APPENDIX

A - Proposal for Career Exploration Workshops

B - Consultants and Workshop Participants

C - Guidelines for Proposals for Pilot Projects - Career Exploration

D - Career Exploration Workshop of Administrative Personnel

E - Writings for Six Developmental Areas

F - Simulations for Subject Disciplines

G - Selected Bibliography

APPENDIX A

Proposal for Career Exploration Workshops

United States Office of Education
Education Professions Development Act

OE Log No. 2510
Sub-Project Proposal Number 3

Program

Vocational and Technical Education Program
Education Professions Development Act

Agency

State Department of Education
Ohio Division of Vocational Education
State Office Building
65 South Front Street - Room 611
Columbus, Ohio 43215

Title

A Pre-Service Summer Training Program for
Coordinators, Teachers, and Other
Professional Education Personnel
of
Ninth-Tenth Grade Career Exploration Programs

Effective Date: May 1, 1971 through August 31, 1971

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
BUREAU OF RESEARCH
WASHINGTON, D. C. 20202

ABSTRACT OF PROPOSED RESEARCH ACTIVITY

A Pre-Service Summer Training Program for Coordinators, Teachers, and Other Professional Education Personnel of Ninth-Tenth Grade Career Exploration Programs

This project is designed to develop an information system and model sampling for local administrators of Career Exploration Programs in the ninth-tenth grades of Ohio Schools.

These institutions will conduct a summer program of investigation, explanation, and experimentation on a simulation basis of the "hands on" career exploration approach needed to assist students in the ninth-tenth grades to make wiser and better career choices and consequent training and educational programs.

A summer program under this project will be a personnel grant program for an operational period of four (4) weeks to study the process and various operating and hypothetical models of exploratory programs operating in Ohio on pilot exemplary approvals and determine basic standard models for inclusion in a publication for assistance to others in the state wanting to start, operate, and evaluate pre-vocational programs of career exploration.

A. Introduction

This particular project in the Ohio Plan for Fiscal Year 1971 is designed to provide the information system and develop models for other local administrators of Career Exploration Programs in the ninth-tenth grades of Ohio Schools.

While the Career Exploration Program is designed as part of the continuum of the Ohio "World of Work" K-14, the Career Exploration program is specifically assigned the task of providing "hands on" experiences to facilitate wise career choices for all ninth-tenth grade students.

This project has as its objectives to provide for evaluation of the participants' models of operation, content of program, administrative and scheduling programs, and proposed material development.

One specific outcome will be a "manual of operation" including recommended program scheduling models as well as content of program. In addition, preliminary criteria for pilot program operations under exemplary funding will be revised and firmed into a standard State operating criteria under whatever funding will prevail in the future.

B. Justification

1. In accordance with the "Program Objectives and Priorities" stated for EPD, this project is aimed at the objectives which say that "only a limited number of realistic career opportunity programs have been plotted," and "One purpose is to familiarize elementary and secondary students with the broad range of career opportunities.

Through the use of Vocational Education Amendments of 1968 exemplary funds for Ohio, six schools in five cities (Akron, Cleveland, Cincinnati, Dayton, and Toledo) have been piloting programs in grades 9-10 with Career Exploration concepts. Each program, although following a basic concept, is operating in different modes and will be used in this project as resource units. Ohio proposes to explode this type of program to all schools and the necessity of using the investment of $145,00 in these six schools to develop pilot program was determined last year (FY-'70).

In accordance with the statement of 553(c)(2) that funds must "supplement" and "increase the level of funding" which would otherwise be made available for such purposes without supplanting such funds, this project is designed to provide the impetus for additional costs in operating exemplary programs in Ohio at the ninth-tenth grade levels of career exploration.

In accordance with the Ohio Plan for Education Professions Development Act under Section 1.0, the objective specifically being implemented states "prepare vocational education personnel to integrate successfully occupational preparation and other education" along with the criteria assisting programs of "pre-vocational" characteristics and becomes the target area of this project.

This is a short term institute as spelled out in the Ohio Plan, Section 1.12, and is to be operated under the Education Professions Development Act, Part F, Section 553.

2. Vocational Education Personnel Needs.

The Career Exploration Program is designed for all ninth-tenth graders, regardless of objective. Therefore, it is proposed to be a required program rather than elective. As a required program, it would entail the utilization of all teachers and staff in the school system bearing on ninth-tenth grade students.

In addition, this would indicate a major curriculum revision in Ohio schools if adopted and required of all students. The population of this approach is as follows:

Fall Enrollments, September, 1968

5th grade	184,566
6th grade	184,484
7th grade	184,450
8th grade	177,757
9th grade	186,153
10th grade	177,181

The trend in enrollments seems to be averaging at the 180,000 mark per grade level, which would indicate the population to be served would be 360,00 ninth-tenth grade students. With a teacher-pupil ratio of 1-30, 12,000 teachers would be ultimately involved with 1,500 administrators (on the ration of 1 administrator to every 8 teachers) in the program. If the teacher-pupil ratio were reduced to 1-25, 14,400 teachers and 1,800 administrators would be involved.

3. Critical Manpower Needs.

The problem faced with this project is to establish a core group of personnel around the state with experiences and backgrounds in the Career Exploration Program field and assist them in developing programs, administration, and scheduling of activities, and content keyed to local conditions and students, as well as evaluative processes.

It is proposed that 180 persons be trained in this project as coordinators/administrators of the Career Exploration Program units in the State.

C. Objectives:

The objectives in this project as related to Career Exploration Programs at the 9-10th grades hinge around the need to develop personnel in each of the 105 Vocational Education Planning Districts and are stated:

1. To produce a "manual of operations" for all teachers and personnel connected with Career Exploration Programs.
2. To train 180 teachers, coordinators, Administrators, or others as designated in the objectives of the Career Exploration Program methodology of operation, and expected continuum of the K-14 program of Vocational-Technical Education in Ohio.
3. To develop a procedure for teacher education institutions to install this approach within their regular programs either through integration of the produced materials or through specific course offerings.
4. To develop these 180 persons as the "core" group around each of the 105 planning districtsin Vocational Educatio for resource and development of Career Exploration Programs in all Ohio's 9-10th grades.

D. Coordination with Other Education Professions Development Act Projects

This project is an independent project related only to the continuum of vocational education from K-14. The steering committee is composed of the personnel involved and supervising related areas, including research.

Institutions indicated as possible training centers include:

Kent State University is being selected for the center which will control the EPDA project based on depth of background of the Vocational Education staff located there, plus the experience of the Guidance Staff on duty, many of whom have had State Department of Education experience including Dr. Glen Salzman, who established the rationale for the CEP approach four years ago. In addition, Kent State University will conduct one or more of the training sessions since it is the center of the Akron-Cleveland complex.

Toledo University also has former State Department of Education personnel both in guidance and in Vocational Education. With the Toledo exemplary project present personnel will be locally available for resource.

The University of Cincinnati will cover the Southwestern part of the State where Dayton and Cincinnati projects are operating. A complete Vocational Education staff is on duty for establishing and conducting such a training workshop and materials development approach.

E. Program Design

The program will consist of six (6) four-week workshops or institutes for the development of personnel and materials in Career Exploration Programs in Ohio.

Six schools are currently offering Career Exploration Programs with support from Vocational Education Amendments of 1968 exemplary funds in the Ohio budget. These schools are in five of the 105 Ohio Vocational Education Planning Districts and will be the neucleus for resource units and activities. With the directors of each workshop, budget has been set to include consultants both from these districts and from without the State, 80 positions in the workshops will be reserved for teachers in the five districts. The workshops will be offered during the summer of 1971, provided this project is approved in sufficient time.

The employed director and three part-time instructors will put together accumulated materials as hand-outs around which the 4-week time allotment will be spent. Details of the conduct of the workshop will be designed and listed by the employed director when this project is approved. Therefore content of the workshop will be submitted in June, 1971. These items include criteria for approval of programs piloted in 1970-71 and sample programs.

At the time of the workshops further determination will be made as to outcomes of workshop, which shall include training for personnel involved, production of helpful materials for others in the Career Exploration Program, and evaluation of models designed during the workshops.

In addition to the training and procedures examined by the participants during the workshop, each member will have samples of work that can be used in scheduling, administrating, and teaching such a program. The output of the workshops will be materials that can be duplicated and made available to others in the State who wish to start Career Exploration Programs.

F. Practicum and Field and Industrial Experience.

Although vocational competency is suggested in the participants, it is not required and the actual experience of the workshop will be the only experience gained except for those persons identified in Section H.

G. Institutional and Systematic Change.

As previously indicated, the change being formulated in this project will be one of approach and content in the 9-10th grade and as a part of the continuum of K-14. At this particular point in the educational system, it is projected that methodology and curriculum change is imminent to hold students in school and at the same time get them closer to making their wise career choice regardless of whether it takes further education or not. The materials developed at this workshop are planned to be widely disseminated including all teacher education institutions who prepare 9-10th grade teachers regardless of discipline orientation.

H. Participants.

Each institution will serve at least sixty (60) educational personnel (30 in each of two four-week workshops) from Ohio schools. A maximum of 180 Career Exploration Program teachers and administrators will be served in the Summer 1971 project.

Recruitment of teachers and personnel will be made through school systems on pilot projects in 1970-71, and through others requesting approval for 1971-72. If over-enrollment is noted from any one school and manpower slots are not available, proportional enrollment will be applied so that all schools are represented from the programs.

One hundred participants will be nominated by their superintendents, one each, from 100 of the 105 Vocational Education Planning Districts. The other 80 persons will be personnel from the five remaining districts which conducted Career Exploration Programs during pilot stages in 1970-71, and will be nominated by the districts from their teaching staff primarily.

I. Participants' Qualifications.

Each member shall be a teacher in the ninth-tenth grade of an Ohio school, or a coordinator or administrator of a Career Exploration Program or planned program.

Each member shall be available for the four weeks in one of the schedules without deleting any period of the program.

Each member shall be acceptable by the college as a student.

Coordinators of programs must meet the criteria of the program (that is, be an approved vocational teacher, vocational guidance counselor, or other person recommended and approved by the Vocational Division).

J. Community, Industry, Teacher, and Student Involvement.

As indicated previously, there will be none in this type and length of workshop.

Evaluation and follow-up of each Vocational Education Planning District will be made, provided additional state funds are made available to assist the local schools. The additional cost approach in the K-10 Career Program makes it mandatory that additional funds need to be made available, and the materials developed at these workshops, although published, cannot be used unless funds for program expansion are made available.

K. Staff Resumes.

Proposed universities are:

Kent State University

Personnel to be named

Toledo University

Personnel to be named

University of Cincinnati

Personnel to be named

Project Director:

(Tentative) R. D. Balthaser, Assistant Director, Vocational Education for Business and Office Education, Vocational Division, State Department of Education.

Professional instructional staff will be selected at a future date, pending tentative approval of this sub-project and staff resumes will be submitted as an addendum at time of selection.

L. Physical Facilities.

Facilities for workshop, administration, and editing will be provided by the participating university. No special needs are indicated other than for regular workshop type facilities and back-up secretarial work.

M. Library Facilities.

Participating universities make both the general library and the specialized education library facilities available to all workshop and student enrollees.

N. State and National Dissemination of Information.

Project reports will be used for basic publication on program operation for use by all schools upon request in Ohio. In addition, publications will be made available to other states upon request for models. Copies will also be distributed to the United States Office of Education and the ERIC system.

Reports of workshops will be consolidated into one package of manuals and materials for distribution to Ohio Schools with Career Exploration Programs as well as participating teacher education institutions and agencies who prepare 9th and 10th grade career orientation teachers.

In addition, analysis will be submitted to the Education Professions Development Act Section of the United States Office of Education and also reported through professional journals.

O. Evaluation.

Evaluation will consist of those items identified by the project director as developed throughout the program:

An evaluation contract, under Part C. Ohio Plan for Vocational Education, has been written by Akron University, Dr. Robert Cochran, Director. Results of the instruments and reports of this contract will be utilized in construction of this section.

APPENDIX B

Consultants and Workshop Participants

University of Cincinnati

Department of Vocational Education Participants

Career Exploration Workshop

July 6, 1971 - July 30, 1971

Name	School	City
Chroniak, Nicholas	Wright	
Davis, James N.	Middletown High School	Lewis Hill
Dawson, John E.	Courter Technical High School	Cincinnati
Decter, James L.	Montgomery J.V.S.	Clayton
Fields, James L.		
Gearhart, Lorraine	Patterson Co-Op High School	Dayton
Graham, Scharleen	Campbell	Columbus
Harrison, Jennie F.		
Martin, Gary Lyn		
Miller, Cleo D.	Courter High School	Cincinnati
Parker, Eldon, T	West Clermont	Geste
Rhoads, Kenneth L.	Dayton Administration	Dayton
Rucker, Barbara L.	Patterson Co-Op High School	Dayton
Skinner, Wilma L		
Thomas, Fred		
Thompson, Dorris A.	Belmont High School	Dayton

Kent State University

Career Exploration Workshop Participants

July 6, 1971 - July 30, 1971

Name	School	City
Andes, Robert	Kent City Schools	Kent
Black, James	Pleasant Valley Jr. High	Parma
Conner, Elizabeth	Patrick Henry Jr. High	Cleveland
Fazzone, Charles	East Liverpool High School	East Liverpool
Fear, John M.	Eastlake North	Willoughby
Hornickle, Donald	Columbiana Co. Bd of Education	Columbiana
Klein, Frank		
Kowalewski, Edward	V. L. Light Jr. High School	
Oberson, Peter	Lake County J.V.S.	Painesville
O'Neill, Robert	Cuyahoga Valley J.V.S.	Cleveland
Peters, Roland	McKinley High School	Canton
Purcell, Boyd C.	John Simpson Jr. High School	
Stiffler, Wayne	Warren Western Reserve	Warren
Rossi, Anita		
Vrotsos, Nick	Washington High School	Massillon

University of Cincinnati
Department of Vocational Education Participants

Career Exploration Workshop
August 2, 1971 - August 27, 1971

Name	School	City
Ball, Helen M.	Cincinnati Technical Institute	Cincinnati
Boggs, Ivory H.	Patterson Co-Op High School	Dayton
Bond, Edna Delores	Franklin Heights High School	Columbus
Cornelius, Wayne	Miami University	Oxford
Corwin, John G.	North Kentucky Area Vocational	Erlanger
Dick, Charles T.	Courter Tech	Cincinnati
DiRocco, A.A.	Greenville Senior High	Greenville
Dupps, Dennis W.	Indian Hill High School	Cincinnati
Emery, Charles S.	Indian Hill High School	Cincinnati
Hill, Edward E.	Patterson Co-Op High School	Dayton
Hust, Eugene C.	Colerain High School	Cincinnati
Johnson, Mary A.	Campbell Junior High School	Cincinnati
Kamp, Robert H.	Courter Tech. High School	Cincinnati
Martin, Richard T.	Scioto County Vocational School	Lucasville
McCormick, Kenneth	Campbell Counth High School	Cincinnati
Price, Adelheid	Courter Tech High School	Cincinnati
Rairies, Bud	Colerain Vocational School	Cincinnati
Rehling, Joseph	Courter Tech High School	Cincinnati
Somers, Jack A.	Patterson Co-Op High School	Dayton
Todd, Carl	Patterson Co-Op High School	Dayton
Turbeville, Floyd	Courter Technical High	Cincinnati
Weiss, Betty	Stowe	
Wellbrock,	Northern Kentucky Area	Ft. Mitchell
White, Gerald	Courter Technical High School	Dayton

Kent State University

Career Exploration Workshop Participants

August 2, 1971 - August 27, 1971

Name	School	City
Bihary, Frank J. (Jr.)	Goodyear Jr. High School	Akron
Cook, Lawrence F.	Goodyear Jr. High School	Akron
Cunningham, William	Patrick Henry Jr. High	Cleveland
Dominick, Rodney	Patrick Henry Jr. High	Cleveland
Elliott, James	Goodyear Jr. High School	Akron
Florea, Earl (Jr.)	Goodyear Jr. High School	Akron
Fousek, Allen	Buckeye High School	Medina
Harris, Doris B.	East High School	Akron
Jones, Samuel	Addison Jr. High School	Cleveland
Kilchenman, John F.	New Philadelphia Hi School	New Philadelph
Marshall, Laura J.	West Branch High School	Canton
Moes, Les	Glenville High School	Cleveland
Montgomery, Edward L.	Ashtabula County J.V.S.	Jefferson
Plance, George L.	Wayne County J.V.S.	Smithville
Rakovan, Richard D.	Maple Heights City Schools	Maple Heights
Spehar, Edward J.	Glenville High School	Cleveland
Thompson, Octavia M.	Patrick Henry Jr. Hi School	Cleveland
Wood, Thomas	Kenston High School	Kenston

CAREER EXPLORATION WORKSHOP

UNIVERSITY OF TOLEDO

August 2, 1971 - August 27, 1971

Name	School	City
Alt, Basil		
Adams, James W.		
Atkins, Charles H. (Jr.)	Sylvania High School	Sylvania
Beck, Richard W.	Columbus Board	Columbus
Clark, Robert	Bowling Green Junior High School	Bowling Green
Dick, William G.	Anthony Wayne	Whitehouse
Farley, Juelene		
Hurd, Wilbur L.	Benjamin Local School	East Liberty
Kankik, Andrew		
Kiroff, Carole	Rogers High School	Toledo
Kyle, Elaine		
Malabansm, Natividad L.	Maple Heights	Maple Heights
Morris, Shirley J.		
Murphy, Veronica	Luella Cummings	
Patterson, George	Woodward High School	Toledo
Shiffer, Marilyn	DeVilbiss High School	Toledo
Winzeler, Charles A.	Archbold High School	Fulton
Whitely, Gracye		

APPENDIX C

Guidelines for Proposals for Pilot Projects - Career Exploration

(Pilot Project Proposals)
"CAREER EXPLORATION PROGRAM"

GUIDELINES FOR SUBMISSION OF
PROPOSAL BY LOCAL SCHOOLS

Ohio Department of Education
Vocational Division
Room 612 State Office Building
65 South Front Street
Columbus, OH 43215

I. STATEMENT OF PURPOSE

This particular guideline established the format and approval procedures of proposals from school districts by the Vocational Division to cover the programs that are proposed for students in grades 9-10, or all 14-15 year olds not in an Occupational Work Adjustment program.

It is the purpose of this program to provide in-depth exploration for all 9-10th grades or 14-15 year old youth in occupational areas of their choosing following a successful career orientation at the 7-8th grade levels. These students will have exploratory experiences in the school in selected fields of the "World of Work" and include those necessary experiences outside the school that will provide the first-hand observation or experience relevant to today's society.

The philosophy of the program entails the involvement of all students in grades 9-10 in the schools selected. Breadth of program will of necessity require the use of facilities and activities beyond the school walls both in finding personnel and in providing experiences for the students. This may include cooperation with other schools and school personnel within and without the school district.

II. PROPOSAL SUBMISSION

1. A written plan may be submitted by any school district in Ohio that is currently operating a Vocational Education program.

2. The plan proposal will be reviewed by a panel of consultants called to the Division of Vocational Education, State Department of Education.

3. Plan proposals will be recommended for approval by the panel, and finally approved for operation and reimbursement by the Division.

4. Plans shall be mailed no later than June 30, 1971.

5. Design and implementation of the plan must provide for the enrollment and participation of all 9-10th grade students in any one school(s).

6. Plans should include an opportunity for students to learn more about their measured aptitudes and interests.

7. Format of proposal shall be as follows:

    A. Description of program.
    B. Organization and administration of program shall be described.
    C. Timetables and schedules of operation including student schedules shall be included.
    D. A list of advisory committee members should be submitted with proposal which also includes employers in the community.
    E. Facilities that will be used shall be listed, by building, including room description and other factors when related to employers.
    F. Budget requested shall be by breakdown of expenditures required over and above regular school costs. Budget request and listing should be in accordance with reimbursement standards listed in Part V.

III. MINIMUM REQUIREMENTS FOR PROPOSALS

1. Programs requested shall cover the two years (9-10th grades), and shall [illegible] designed for all students in these grades, including any other 14-15 year olds where possible regardless of grade level.

2. Programs shall include a minimum of 270 clock hours of instruction in the two-year period in an acceptable pattern of scheduling. Time may be scheduled in standard periods per day in a block of time (but not in a 1-period per day for the 2 years). Any blocking principle may be used to equate to minimum hours (i.e., a 4th quarter useage, or x-number of days/weeks on a full-time basis, etc.). On-the-job work experience may be used in the requested hours as long as it is supervised by the school, and hopefully will be in excess of the minimum hours required for the two years.

3. Programs shall include "hands-on" exploration in laboratories, on-the-job, and/or classes in any combination or configuration.

4. Each student shall have the chance to explore at least 3 clusters of occupations in the two years.

5. In-school laboratories may consist of individual rooms, industrial arts, areas, home economic labs, business education rooms, or other designated areas and facilities. Laboratories may be un-used vocational facilities or stations provided by industry, business, or professional groups.

6. Programs should progress from the 7-8th grade Career Orientation Program (or similar) through exploration of clusters, and must include hands-on experiences as a basis for exploration.

7. Programs shall be of such size to warrant breadth of job clusters in the occupational codes of the USOE as typified in the publication VOCATIONAL EDUCATION AND OCCUPATIONS or in the USDL publication DICTIONARY OF OCCUPATIONAL TITLES (DOT). It may be that this breadth will require a multi-school approach or an "area" school approach.

IV. EVALUATION OF PROGRAM

1. Evaluation shall be made of program at the middle (progress report) and end of each year.

2. The evaluation shall indicate areas of career exploration completed, statistics on program, and other items such as analysis by consulting teachers and outside visitations. It should show failures and problems as well as successes.

3. There shall be a student evaluation of the program.

4. There shall be a parent evaluation of the program.

5. If community observations or work experiences are used, there shall be an employer evaluation.

6. Plans for evaluation should include provisions for determining changes in students' occupational interests, attitudes, and knowledge from the beginning to the end of the program.

V. REIMBURSEMENT STANDARDS

1. Programs shall be reimbursed at the end of the year based on a regular affidavit submitted to the Division of Vocational Education, State Department of Education.

2. Additional costs of the program will probably be in the areas of coordination, materials, transportation, retirement costs, and teaching aids. Other costs can be submitted for approval if justified, but all costs will have to be supplemental and may not supplant present costs.

3. In-Service training of personnel may be included in these pilot projects. Costs shall be identifed in budgets and itemized on reimbursement.

4. Maximum budget may be established at no more than $30 per student, or on a class basis for each year of operation. Only pilot projects will be funded at this time after their approval.

VI. PERSONNEL

1. Coordinators of programs shall be qualified as approved Vocational Education teachers or Vocational Guidance Counselors, or as otherwise identified and documented as to qualifications.

2. An in-service program should be conducted for all teachers participating in the project and teaching in the program in order to assure some degree of success in the program.

3. External personnel and consultants utilized in off-school situations must be screened to meet the needs of the program, including the on-the-job supervisor when co-op work experience is used.

Note: Occupational Work Adjustment teachers and students may be exempt from this program if in existence in the school where the program will operate.

These are pilot projects for experimental and demonstration purposes ONLY.

APPENDIX D

Career Exploration Workshop of Administrative Personnel

CAREER EXPLORATION WORKSHOP
of Administrative Personnel
KENT STATE UNIVERSITY

On August 23 and 24, 1971, a two-day workshop was held at Kent State University to discuss the following problem: INITIATING CAREER EXPLORATION PROGRAMS IN THE PUBLIC SCHOOLS OF OHIO. The objective of the conference was: TO GENERATE SOLUTIONS TO THE ADMINISTRATIVE PROBLEMS INVOLVED IN THE INTRODUCTION OF A MASSIVE EFFORT IN CAREER EXPLORATION PROGRAMS.

This conference was held as a part of a group of Career Exploration Workshops held at Kent State University, University of Cincinnati, and Toledo University.

Participants in this two-day workshop were:

Dr. Charles W. Nichols, Conference Leader
Chairman, Department of Vocational Education
Kent State University

Mr. Leo H. Clayton, Consultant
Principal, Glenville High School
Cleveland City Schools

Mr. Al Ferian , Consultant
Coordinator of Apprenticeship Training
Parma City Schools

Mr. Robert Fricker, Consultant
Director, Vocational Education
Parma City Schools

Mr. Walker Huffman, Consultant
Superintendent, Muskingum County Joint Vocational School District

Mr. Robert Pond, Consultant
Superintendent of Schools
Salem City Schools

Mr. Eldon J. Reiboldt, Director
Career Exploration Workshops

Mr. Ray J. Silver, Consultant
Assistant Superintendent (Curriculum Instruction)
Upper Arling City Schools

Mr. William R. Slezak, Consultant
Director, Vocational and Adult Education
Alliance City Schools

I. The following questions and issues relative to career exploration were proposed:

State School Standards

1. How to bring the concept of Career Education into the curriculum.
2. Recommendations on credits for Career Exploration.
3. What standards would need to be changed in order to get students into hands-on experiences?
4. What subjects should be deleted to make room in the curriculum for Career Exploration?
5. Can Career Exploration become part of a subject for credit?
6. Should guidance, vocational education, or general education be responsible for Career Education?
7. The concept of the year-around school.

Funding Facilities and Equipment

1. How can Joint Vocational School buildings be used for Career Exploration?
2. When can Joint Vocational School buildings be used for Career Exploration?
3. What would be the problems if school facilities were used in the summer for Career Exploration?
4. How do we get students into hands-on experiences?
5. Who should teach Career Exploration?
6. Are practical arts building or wings needed?
7. How useful would mobile labs be?
8. Can school buildings be used on Saturday? What would be the problems?
9. The concept of the year-around school.
10. Could the cost of facilities and equipment be funded through federal money?
11. How would the cost of new products for use be funded?

Curriculum Revision

1. How can the guidance function be integrated into the curriculum?
2. How can the concept of Career Education be brought into the curriculum?
3. How can Career Education experiences be brought into subject areas?
4. Recommendations on credits for Career Exploration.
5. Approaches for scheduling Career Exploration:
    a. Block time
    b. Integration
    c. Combination of block and integration
6. What subjects should be deleted to make room for Career Exploration?
7. Can Career Exploration become part of a subject for credit?
8. What curriculum revisions should be made in the 7th and 8th grades in order to move some 9th and 10th grade subjects into the 7th and 8th grades so that there is room for Career Exploration in the 9th and 10th grade?
9. What curriculum revisions should be made throughout the the 9th and 10th grades?
10. Should course credits be dropped in order to implement Career Exploration?
11. Education of total staff through curriculum councils.
12. Do colleges need to teach future teachers about work?
13. Do we need new products in schools to use for exploration?
14. The concept of the year-around school.

Retraining of Administrators, Teachers, and Staff

1. What would be the new role of guidance personnel?
2. How much and what type of retraining would teachers need to effectively teach Career Exploration?
3. What would be the revised role of administrators?
4. Are curriculum councils necessary?

5. Do colleges need to teach future teachers about work?

6. What type of retraining will counselors and counselor educators need?

Selling the Community

1. How can an attitude of acceptance be developed for Career Exploration?
    a. Public Opinion
    b. Teachers
    c. School Administrators
    d. Parents
    e. Industry
    f. Students

2. How do we induce industry to take an interest in Career Exploration?

3. Would labor unions be of help in implementing Career Exploration?

4. Which public agencies could help with Career Exploration information?

5. Can school buildings be used on Saturday? What would be the problem?

6. The concept of the year-around school.

Administrative Problems

1. What scheduling problems are created when Career Exploration is implemented into the school curriculum?

2. What problems would Joint Vocational Schools face in working with their district schools?

3. How can Joint Vocational School buildings be used for Career Exploration?

4. When can Joint Vocational School buildings be used for CareerExploration?

5. What would be the bussing problems if Joint Vocational Schools are used?

6. What would be some solutions to bussing problems?

7. How do we get students into hand-on experiences?

8. Would labor unions be of help in implementing Career Exploration?

9. Could county schools share equipment and facilities for Career Exploration?

10. Could the cost of facilities and equipment be funded through federal money?

11. What subjects could be deleted to make room for Career Exploration?

12. Who should teach Career Exploration?

13. Can school buildings be used on Saturday? What would be the problems?

14. Can the school day be lengthened?

15. Should course credits be dropped in order to implement Career Exploration?

16. The concept of the year-around school.

II. The administrative recommendations for each of the six discussion areas by group were as follows:

State Standards Recommendations

1. State standards must change with a changing curriculum.

2. State Standards must be viewed as minimal standards which can be modified as needs arise.

Financial and Facilities and Equipment Recommendations

1. Money for new buildings, renovation of present buildings and remodeling of present buildings as well as the necessary equipment should come from the state. In-kind costs of operating should come from local money.

2. Money for mobile lab units should come from the state.

3. Business and industry will not accept 14 or 15 year old students in factories and hazardous occupations. Fourteen and Fifteen year old students may be accepted in some service occupations.

4. Business and industry should be used when feasible. Otherwise, there must be a use of school facilities and centers.

5. Most study halls are cafeterias and cannot be remodeled for Career Exploration. Other study halls are classrooms which are in use.

6. Vocational centers are useful for educating people in grades K-Adult.

7. Each planning district should design a Career Continum Plan.

8. A planning district warehouse for storing equipment may be useful.

9. Industrial equipment can be used in schools on consignment. Schools will need to pay for the cost of moving and installing this equipment.

Curriculum Recommendations

1. There should be a continuum of Career Education Programs in grades K-12.

2. There should be a marriage of Career Orientation and Career Exploration.

3. Five hundred and forty hours spread over four years is acceptable.

4. Planning district supervisors should have the responsibility for coordinating career education programs in the district schools.

5. A career education supervisor should be located in each planning district. He need not have a vocational teaching certificate, but be approvable with broad career background.

6. The curriculum should be reviewed and revised to implement Career Exploration.

7. The curriculum should be initiated slowly. Schools should expand in an orderly procedure. In the beginning there should be no hourly requirement.

8. The curriculum should review teaching methods and incorporate the application of hands-on experience, simulation, and other activities that relate to subject matter.

9. The amount of time expended for the application of new career information through activities should be counted as time spent in Career Exploration.

10. Pilot programs toward established time criteria, should be funded on a longer basis than two years. It is recommended that three to five years be used for pilot programs.

11. Each present school system and facilities should be evaluated before implementing Career Exploration.

12. Pilot programs should be placed in good schools where follow-up and continuation is highly probable.

13. Pilot programs should be placed in an array of different types of schools.

14. Pilot program review and evaluation teams on the state and local levels should include professions, business and industry, and professional educators from all types of school districts.

15. Career Exploration should be integrated into all subjects on the basis that credit is not important.

16. Teachers should view Career Exploration as part of the curriculum.

17. Individualized study and independent study should be used. This would be done over and above the school day.

18. Mini-occupational courses should be incorporated into the curriculum through a modular schedule.

19. Free-forum education should be used where the students are out of school 2/3 of the day and in school 1/3 of the day.

20. Career Exploration should be implemented through a combination of block time and integrated time into subject activities.

Retraining of Teachers, Administrators, and Staff

1. Education institutions should have the responsibility of retraining teachers, administrators, and staff. The Department of Vocational Education at Kent State University was cited as the institution to be responsible for this leadership.

2. Career Exploration teacher training should come from an institution other than the local school.

3. Teacher training should emphasize methodology, attitudes, and curriculum organization and design.

4. It is not likely that a subject teacher within a particular school can be used as that school's teacher trainer.

5. Schools should evaluate their staff to see how many people are already employed who could work with such a program.

6. Principals, Superintendents and other educational leaders do not have the time to assume the additional responsibilities of Career Exploration teacher training.

Selling the Community Recommendations

1. Enlist the aid of and orient the Curriculum Director.
2. Work with the building principals.
3. Work with the Superintendent of schools.
4. Get the support of parents.
5. Utilize advisory committees.
6. Sell the boards of education.
7. Sell the administrative team.
8. Study the student body and gather the data.
9. Career days with a follow-up program.
10. In-service programs for teachers.
11. Identify the success of present programs and reasons for it.
12. Develop state standards by the State Board.
13. Base the Career Exploration program on student abilities and life goals.
14. The total community must realize that today's education is not relevant.
15. Industry may be induced to help in exploration on the basis that good attitudes will be developed and this will be a reduction in training costs. Students will have developed a healthy interest in work.

Administrative Problems Recommendations

Although the questions and issues under this heading for discussion numbered 16, the recommendations for this area are, in reality, covered by the recommendations in the other areas of this section. Discussion relative to administrative recommendations revealed that recommendations made in the other areas of this section duplicated the material prepared for this phase of the report.

APPENDIX E

Writings for Six Developmental Areas

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To clarify values and psychological outlooks on life relative to career development through exploratory career experiences of clusters of his careers of his own choice.	To introduce students to activities that will lead to future satisfaction with work and self.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify his strengths and weaknesses and list the advantages and disadvantages of the particular career for him.	Rap session with students to focus on values, e.g., work, thrift, honesty, involved in specific occupations.	C.E.P. Coordinator arranges transportation for field trips and makes DOT available to teachers who will use it with their classes.
The student will be able to name various sources of occupational literature and ways to use them.	Explain use of career kits to students and provide some for students to work with in class.	Make arrangements with librarian to use library as resource center.
The student will be able to report on the use and purpose of the D.O.T.	Take class to library to familiarize students with occupational literature there. Encourage students to visit library to find information about careers in which they express interest. Ask librarian to assist by demonstrating methods of obtaining information. Assign students a task which requires obtaining information from the library.	
The student should be able to report on a specific career through use of occupational materials.	Borrow a volume of D.O.T. from library and explain its use to class. Discuss DATA-PEOPLE- THINGS rating system for the various occupations. Focus on the great number of options the dictionary indicates for any one pattern of interest, aptitudes, skills.	

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To understand and accept significant appraisal of data about self in the areas of: vocational abilities, vocational interests, vocational aptitudes.	To promote student understanding and acceptance of his abilities, interests, and aptitudes.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to construct a profile of himself which will assess his strengths and weaknesses.	Student to review his school record with the counselor.	CEP coordinator makes arrangements for the OVIS and DAT to be administered.
The student will be able to compare the different types of interest ability and skill tests and their purpose.	Administer OVIS and DAT to students. Enlist aid of university guidance departments to provide graduate students to assist in joint interpretation.	Coordinator and/or teacher make arrangements with nearby university guidance department to have graduate students assist with OVIS and DAT interpretation.
	Test orientation unit for class. Graduate student to present and explain different kinds of tests by both school and employers for evaluation of interests, abilities, and skills.	CEP coordinator makes arrangements with counselor to have students' school records reviewed with counselor.
	Class to prepare a rating sheet containing a set of questions that will serve as a guide to self-examination. These will include listings of interests, aptitudes, skills, etc.	
	Ask each student to write a portrait of himself entitled "Who Am I" in which he includes a brief physical description of himself, discusses his present interests, tells the kind of person he most admires, and what he hopes to do after high school.	

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To aid in the development of a realistic self-concept by allowing students to sample a wide variety of vocational training opportunities.	To help the students become aware of the wide variety of vocational training opportunities that are available in the school and community.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to categorize significant data about himself which will aid his understanding and acceptance of self.	Provide for a systematic and comprehensive visitation and sampling of all vocational classes that are available to the student. To include: (1) in-school classes, (2) vocational schools, (3) pre-apprentice schools; (4) post-high school apprentice schools; (5) technical schools; (6) business schools; (7) trade schools.	CEP coordinator makes arrangements with teacher of vocational programs in the school for visiting and sampling by student.
The student will be able to name various vocational opportunities available to him.	Provide sensitivity sessions to improve interpersonal relationships of the students.	Coordinator works with counselor in conducting sensitivity sessions with small groups of students.
	Provide field trips for students to visit centers and plants which retrain people.	

DEVELOPMENT OBJECTIVES PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES ACTIVITIES PROGRAM IMPLEMENTATIO

Introduce students in many different occupations in person if possible; if not, through film strips, tapes, interviews which students themselves have tape-recorded. Arrange visits to plants, hospitals and as many other work settings as possible.

Try to arrange for a number of people on different levels of employment in one broad level to talk about their jobs to the class. If face to face interviews are not possible, supplement by use of tapes, films, and information obtained from career literature. Compare the different levels of education, and training required to become a hospital orderly, nurse, etc.

Prepare for each field trip by orientation session in which students are to anticipate some of the vocation they will be exposed to, the level of education each, the duties of each. Assign one group of students to note the entry level jobs available to high school graduates in each place visited. Another group might report on on-the-job training; a third, on the fringe benefits and opportunities for continuing education.

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES

ACTIVITIES

PROGRAM IMPLEMENTATION

After each trip, each student is to make a choice from among the jobs he observed and try his choice on for size. He is to explain why he thinks he would be suited for the job and what he likes about it.

Ask each student to research one vocation as thoroughly as he can, using career materials in the school and public library, career kits, DOT, industrial publications. When all reports are in, try to get the art department to supply illustrations and a cover.

Class to prepare a letter to parents explaining schools' policy of integrating career development into the curriculum. Invite parent involvement as resource speakers.

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To explore and analyze one's own temperament as related to possible job choices in a non-threatening atmosphere.	To help the student grow in th kind of self-awareness necessary for a personally satisfyi and appropriate vocational choice.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students are able to formulate values which are important to them.	Arrange for sensitivity sessions with a trained leader.	Consult administration about providing trained sensitivity session leader.
Students are able to name their values and needs, as well as their skills, as they do their vocational exploration.	Invite a commercial employment counselor to speak to the class about the connection between personality and temperament factors and job choice.	Explain objectives to school psychologist and enlist his cooperation in working with class.
Students are able to list different basic personality types.	Ask school psychologist to have rap sessions with the students about basic personality types as they relate to choice of occupation and career choice.	Contact O.S.E.S. for speaker.
Students are able to analyze aspects of their own personality and temperament in relation to success in different vocations.	Involve students in a discussion of the different psychological needs that work satisfies: prestige, power, accomplishment, service, creativity, dependence, etc. and then have them try to assign occupations to each area.	Ask students to make arrangements for several self-employed people they know to talk to the class.

DEVELOPMENTAL OBJECTIVES | PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Ask students to invent situations involving conflict of values, such as an executive whose job takes too much time from his family or a traveling salesman who is basically a homebody, etc. Submit some of these problems to the class and have students play role of advice columnist and provide solutions.	Consult vocational coordinator for choice of suitable film.
	Assign a different occupation to each student at random. Ask each to assume that he has the training to do the job. Each is to evaluate whether or not his personality is suited for the job.	Contact large company for speaker from their personnel department.
	Ask each student to choose an occupation and then write a personality sketch of the kind of person he would hire for the job if he were a company manager. Students may read their descriptions to the class without telling the occupation. The rest of the class is to try to guess the occupation.	
	Show filmstrips of people who have made a suitable and satisfying vocational choice to the class. Discuss in what ways the personality and temperament of each contributed to job success.	

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES

ACTIVITIES

PROGRAM IMPLEMENTATION

Students to write a theme: "A Square Peg in a Square Hole," describing the personality of a teacher they have met, or a doctor, sales clerk, repairman, or a member of any other occupation, who seemed outstandingly suited to his job.

Ask a personnel director of a large company to speak to the class about people in his company who have been hired and fired on the basis of personality factors.

Administer to class a devised set of WHAT WOULD YOU DO work situations in which questions of personality and temperament come up for consideration: You are a determined non-conformist who has been offered a job in a large company. You like the work but hate supervision. What should you do? etc.

Try to get several self-employed people in the community to talk to the class about why they made the career choice they did and what kinds of people are most successful working on their own.

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Ask students to play roles of client and employment counselor. Client expresses desire to follow a particular vocation and counselor asks questions about personality and temperament of client in relation to that vocation.	
	Encourage the students to talk about the personality factors in their own work experiences.	

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To develop a process of self-direction so that one can attain maximum growth through the educational process.	To assist the student to make meaningful and goal-oriented choices related to his own needs and interests.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to compare the various course offerings and select a sequence suitable to a particular area of vocational interest.	Using the school curriculum booklet as a reference, ask the students to discuss the vocational utility of the various courses of study.	Provide copies of the curriculum booklet.
Students will be able to identify courses in relation to their own particular interests and vocational plans.	Have the students state a tentative vocational choice or area of interest and plan what courses they would take over a four year period to advance their preparation for their vocation.	Get art materials for poster contest.
Students will be able to analyze the relationship between a planned and completed high school career and vocational success.	Ask the students to plan courses for a future auto mechanic, a nurse, an engineer, a doctor, a carpenter, a T. V. newscaster. Ask them to list both in-school and outside extracurricular activities that would contribute to training for each of these fields.	Enlist cooperation of guidance department for follow-up information.
Students will be able to describe a pattern of skills and attitudes necessary for competance in almost all jobs.	Delegate students to interview the shop teachers and the teachers of vocational programs in the school and report to the class on the vocational possibilities of each program.	Get permission of shop and vocational teachers for student to interview them.

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To experience an opportunity to share opinions, attitudes, job experiences, problems, and plans in an atmosphere of trust and respect.	To develop students' awareness of the importance of human relationships in job selection and job satisfaction.
	To develop students' awareness of trust and respect as factors in human relations.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Student will be able to identify after-school jobs and distinguish between various jobs students hold.	Student will construct a bulletin board showing after-school work activities. List names and kinds of job. Show pictures of students at work.	Obtain an inexpensive color camera that students could check out for job photos. Obtain or reserve a classroom bulletin board.
Students will be able to describe opinions and job attitudes.	Each student relates what he likes and dislikes about his work and changes he would suggest. Keep the bulletin board up to date as jobs change throughout the year.	Write a script for roles or ad lib with written job situation.
Students will be able to identify and compare trade union officials. Students contrast possible high earning power of union membership with other non-union jobs.	Role-playing: student discusses job grievance with employer, with a friend, with a school counselor.	C.E.P. coordinator arranges times and dates with union officials. A wide range of unions should be contacted.
Students will be able to reproduce an employment office environment by role-playing.	Representatives of labor unions discusses entry requirements, apprenticeship opportunities, starting pay in the craft.	Obtain written dress policy from an industry.
	Role-playing: students apply for jobs they have viewed on field trip. Student interviewer to explain why he accepts or rejects an applicant.	Obtain from industry: application blanks, tape recorder, or video tape setup for interviews.

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To increase participation in one's total environment through knowledge and understanding of school and community organizations.	To help the student understand and appreciate the value of cooperation in group activities and the value of the individual as expressed through participation in school and community organizations.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to select a typical community organization and report on how the organization serves the community.	The class will participate in a field trip to a typical community organization such as the Red Cross.	C.E.P. coordinator arranges transportation and coordination with Red Cross personnel.
The student will be able to synthesize the role of the student with the overall role of student government.	In-class talks and discussions by leaders of student government.	Release student leaders for class talks.
The student will be able to list the entry jobs of a visited industry and to tell how the industry makes a contribution to the community.	Students visit meetings of local service clubs such as Rotary, Kiwanis.	Coordination with all available news media for possible publication.
The student will be able to state the duties performed in volunteer work.	The student should have post field trip preparation of news release about their field trip. Article to include summary of entry level job opportunities and the industry's total community contributions.	Coordination with all available news media for possible publicatior
The student will be able to compare and discriminate between various Red Feather organizations.	Students who work as volunteers for community organizations report to the class about their work	Some students may need releases from other classes.

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Write for information about a Red Feather organization, each student to write to a different agency, students then prepare reports on information.	Obtain a list of agencies and addresses. A brief summary of each agency would facilitate student choice.
The student will be able to prepare a plan to raise money and execute the plan.	Class to conduct a money-making activity such as a bake sale, car wash, etc. in order to make a contribution to an agency of student's choice.	Students own plan and implementation
The student will be able to describe and analyze the club activities within the school.	Invite school club officers to speak to the class about the activities and goals of their school club.	Obtain class release for student club leaders.

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To appreciate the various educational opportunities within the school and understand the roles and functions of school personnel.	To contribute a better school adjustment by impacting a thorough knowledge of the physical facilities and personnel organization of the school.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to classify the course offerings of the school in an order that would represent a logical grouping for a training sequence for a job.	Students to review course offerings from curriculum guide. Students to choose an occupation and try to assign the courses that would best prepare a student for that job.	Coordinate with director of instructio to provide materials.
The student will be able to report the facilities, personnel, rules, and traditions of the school to the class.	Students to be oriented to include: 1) physical facilities, 2) school personnel, 3) school rules, 4) school traditions.	Coordinate with director of school act ivities for a year lon pattern of school orientation.
The student will be able to describe the location of all vocational training facilities.	Students prepare a map showing all vocational training facilities in the school.	Obtain outline (blank maps of the school.
The student will be able to outline the variety of jobs in the school.	Students compile a list of all the occupations in the school.	C.E.P. Coordinator pr pares a master listin of all jobs in school for teacher reference
The student will be able to classify and describe the job skills with regard to a school worker.	Students interview one school worker and report in depth on one school-related occupation.	Student has clearanc interview workers. D.O.T. sets for refe ence.

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to define their responsibility as students and relate carrying out these responsibilities to progress in reaching vocational goals.	Students can organize a slogan or poster contest on the theme: It pays to plan your high school career.	
	Ask a committee to consult the guidance office for follow-up information: percentage of last years graduates who went to college, percentage of dropouts last year, percentage in other training, percentage now employed. Ask guidance counselor to look up record of 10 graduates and 10 dropouts chosen at random. Compare number employed in each group and kinds of jobs they have. Committee to report findings to class.	Contact guidance personnel to arrange for their assistance
	Ask each student to interview two adults to find out what part of their high school training has contributed to their present competence on the job.	

SELF AND ENVIRONMENT

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to discriminate between purposeful and aimless use of their time.	Students to keep a time chart of their activities for a week, then make a graph showing the allocation of time spent on homework and study, jobs, household chores, community activities, recreation, etc. Students to discuss whether they are using time constructively or whether graph has shown need to reorganize.	
	Students to view film showing actual employment interviews and then analyze each applicant's high school career from the point of view of what it reveals about the relevance of courses chosen, grades, attitudes. Ask students to play role of personnel manager and explain why he hired or did not hire each applicant.	Contact vocational coordinator for use of interview films.
	Students to study job description sheets for workers in several occupations and then write a job description for a person whose occupation is being a student.	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to identify areas of weakness in school performance of adjustment and get appropriate help.	Establish a referral service for those students who think they would benefit from being assigned a senior Big Brother or Sister, and also for those who need special tutoring in school subjects and would welcome the assistance of an academically capable senior.	Arrange for Big Brothers and tutors through guidance department and honor society.
	Bring in successful high school graduates to explain value of the high school experience and the need for effective study habits, time budgeting, etc. to the class.	Contact high school graduates to act as speakers.
	Invite a member of the staff of Ohio State Employment Service to talk about entry levels jobs for high school graduates; for dropouts. Is there a set of minimum skills and personality characteristics that almost all employers require? Where are these best obtained?	Contact O.S.E.S. to arrange for speaker.

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Get entry job application blanks for the students to study. Ask them to fill them out as though they had already graduated and were presenting them to an employer. Students to take turns playing applicant and personnel manager and deciding whether the high school history on the blank indicates a purposeful career at school.	Get application blanks and job descriptions sheets for class to study.
	Students to study employee evaluation sheets used by employers. What skills and attitudes are rated? What opportunities does high school offer to acquire these?	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To match what one has discovered about himself with what he has discovered about the worker in the occupational areas he has studied.	Provide experiences and activities which will enable the student to match what he has discovered about himself with what he has discovered about the worker in the occupational areas he has studied.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to match himself and work so as to achieve a greater chance for entrance into a successful and correct occupation for himself.	Have students participate in work-sampling according to their individual interests so they may learn more about themselves in relation to what i expected of a worker. In jobs which have a high D.O.T. rating for data or things and a low rating for people, students could work sorting various nuts, bolts, count nails, etc. to see how tedious some D.T. jobs are. For high people-oriented jobs students could work with the other students in supervisory roles, etc. to see how well they	Gather work-sampling material (or visit a work-sampling center); gather materials for explanation of D.O.T. numbers; class discussions; arrange for student interviews; role-playing situation; contact employers for "hands-on" experience or observation of workers; contact vocational counselor for talk to class.

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	relate to how others relate to them.	
The student will be able to explain the meanings of the DPT ratings in the D.O.T. and relate them to a job and himself.	Have students list skills, training and abilities they possess and have various occupations in which they are interested with a list of its requirements, skills, etc. for the workers in those jobs. Have students see what jobs they could be employed in immediately and which jobs would require further training, education, etc. Have students interview someone in their occupational area and report to the class. Role-playing situation: Have students interview for a job (limit it to a small number 3-5) and tell the employer their various skills, interests, ability, training, etc. Then have each student in the class act individually as an employer and tell who he would choose for the job and why.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students visit job in which they believe they are much suited and have them actually work on job (if possible) or observe job for a various number of hours and report back to class.	
	Discuss difference between interest and aptitude. Show how a student may not be able to work in a particular job merely because they are interested in it. Also they can be shown related job clusters which may allow them to work in a particular field, if not in a specific occupation. For example: a girl may be interested in becoming an RN, but does not have the qualifications, nor the ability on a college level. Show how she can be an LPN or some other type of hospital worker, even if she does not have the ability to be a registered nurse.	
	Have students interview their parents who are working and ask how they acquired their jobs, their interests, etc. Then have them report to the class on their findings.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Discuss fully D.O.T. numbers and what the data, people, and things listings mean and how and why they are categorized as such.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To study a few selected occupations intensively.	To provide experiences and activities that will enable the student to analyze specific areas of interest and evaluate them according to his personal preference as though he were making a commitment.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to analyze the areas of his interest and accurately evaluate them as if he were making a commitment.	Have students list three fields of work in which they are most interested. Using their choices and results of OVIS, GATB, and other aptitude tests, group students accordingly and discuss their chosen areas.	Class discussion: contact NAB for "hands-on" experience; obtain films and filmstrips on job clusters; obtain video tape equipment; arrange library time for research; student interviews; contact resource personnel for talks; role-playing situation; contact employers for field trips.
The student will be able to replicate actual work experience in a specific occupation.	Contact National Alliance of Businessmen (NAB) and arrange "hands-on" experience for students in factories, etc. for a set period of time.	
	Have students view films and filmstrips on various job clusters so they can see the many jobs related to	

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES

ACTIVITIES

PROGRAM IMPLEMENTATION

their interest area.

Have students view video tape of a student in their school who is doing "hands-on" experience so they may see what actually goes on in a job.

Have students list all jobs they can think of which would fit various job clusters so they can have an idea of where jobs fall in a cluster pattern.

Have students do research on a particular occupation they are interested in and report back to the class on education, training, opportunities, advancement, benefits, drawbacks, etc.

Have students interview someone who is working at a particular occupation in which they are interested and report back to the class on their duties, education and training, likes, dislikes, benefits, etc.

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES | PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Use resource personnel from industry, labor community to relate to students various natures, education, etc. of jobs. Follow with class discussion.	
	Role-playing situation: Have students pick a certain job cluster such as construction and use a definite project like building a house and have students decide what workers are needed, how many, etc. and have them complete their project.	
	Have students participate in various field trips to factories, businesses, stores, etc.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To understand proper ways of seeking and finding employment and continued satisfaction from work even without a high school diploma.	To provide experiences and activities which will prepare the dropout or potential dropout for employment and satisfaction in the world of work.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to handle some type of job in the world of work even though he is a dropout or a potential dropout.	Have students list jobs they think are available without high school education. Discuss their lists, drop those jobs which do require high school education and add jobs to their lists.	Class discussion; arrange for a student survey; arrange library time for research; contact speaker from Work Incentive Program to speak; gather statistics concerning dropouts and unemployment, dropouts and welfare, etc.; contact an employer for a talk.
The student will be able to list jobs which do not require a high school diploma as well as those jobs that do.	Have students participate in a survey in which they would visit various industry, stores, etc. and inquire as to what jobs can be fulfilled by a person without a high school education.	
The student will be able to replicate actual work experience on a specific job.	Have students join an Occupational Work Experience Class and let them work part-time at a specific job.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to report on the requirements of vocational and technical training schools.	Have students do research on vocational and technical training schools to see if they must have a high school diploma to enter or if they can enter by taking an equivalency exam, etc.	
The student will be able to define work sampling and tell how it might help them in the world of work if the drop out of school.	Have speaker from WIN (Work Incentive Program) come in to speak to class on how they place people, what Work-Sampling is, the problems involved, etc.	
The student will be able to tell how an Unemployment Bureau can help an unemployed dropout.	Discuss how Unemployment Bureau can help people find jobs and what to do. Have speaker from Bureau talk to class about their procedures.	
	Have students be encouraged to work by showing them the statistics concerning high school dropouts. How many people going to Unemployment Bureau, on Welfare roles, etc. are high school dropouts?	
	Have students listen to an employer who would tell students differences in salary from that of a high school dropout to that of a high school graduate and above.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	**ACTIVITIES**	**PROGRAM IMPLEMENTATION**
	Have students discuss ways to obtain high school diploma if they decide a year (or several years) after dropping out they want a diploma. Discuss night school, summer school, and legitimate correspondence schools. Discuss the cost of each method vs. the free public education now available to them.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To see that the present and future job market is changing constantly and will continue to do so	To provide activities and experiences which will enable the student to identify the present and future job market and list their forthcoming changes and how to cope with them.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to prepare himself for job changes.	Have students research government Bureau of Labor Statistics, Chamber of Commerce, College Placement Office, Private Employment Agencies, Ohio State Employment Office, Occupational Quarterly, E.R.I.C. Center, and newspaper clippings to obtain trends in job changes.	Gather pamphlets and materials for research in job changes; class discussions; student interviews; arrange for field trips; bring want-ads to class for discussion; arrange for speaker from employment agency to talk to class.
The student will be able to list reasons why jobs change and understand the reasons.	Have students discuss a census obtained from industry concerning changes in job opportunities.	
The student will be able to list trends in job changes.	Have students collect information from the news media concerning job obsolescences affected by automation.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to tell what happens when there are job changes and tell how to cope with them.	Have students interview parents and have them ask how many times they have changed jobs and why.	
The student will be able to explain the effects of automation on job changes.	Have students participate in a field trip to various industries and have them show all the automation and have employer explain various jobs previously done by hand, how many people are now employed after automation took over.	
The student will be able to arrange in order jobs which are the most stable, jobs which are most likely to change, and jobs which are most in demand at the present time.	Have students visit computer center and show how computers have taken the place of many previous jobs. Have students discuss "Choosing a Career in a Changing World" by Westervelt Virginia Veeder. Bring want ads to class and discuss which jobs were not available ten years ago, which ones won't be needed in ten years, which ones offer the most security, which ones are most frequently advertised, etc.	

WORLD OF WORK

DEVELOPMENTAL OBJECTIVES — PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students listen to a speaker from an employment agency who will explain what jobs are offered, which ones have become obsolete, the opportunities, etc.	

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To become aware of educational and vocational opportunities in the community and services available to youth.	To provide information of educational and vocational opportunities in the community and services available to youth.
To learn about existing and future opportunities in post-high school institutions and training programs.	To introduce existing and future opportunities in high school and post-high school institutions and training programs.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to identify educational requirements for various occupations.	Students hear from speakers from business, industry, vocational centers, educational institutions, and business schools.	Contact speakers, contact employers for field trips, class discussion, arrange time at resource center, contact various educational and vocational schools for pamphlets, students interviewing job workers, gather materials for poster contest, obtain application forms from employer, obtain information about college costs and scholarships from various sources.
Students will be able to name careers of their interest.	Students participate in field trips to business, industry, vocational centers, educational institutions and business schools.	
Students will be able to differentiate among different types of occupations available.	Have students list all educational and vocational opportunities they think are available in the city in which they live, discuss their lists, and add to them.	

EDUCATION AND TRAINING

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to explain occupational duties and requirements of a particular worker.	Students go to resource center (library, etc.) to look up information about jobs on their own. Students utilize pamphlets from various educational and vocational schools which list requirements, etc.	

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES

To learn of educational, vocational, and guidance resources available to assist in vocational and educational planning and how to use these resources.

PROGRAM OBJECTIVES

To provide information about educational, vocational, and guidance resources available to assist in vocational and educational planning and how to use these resources.

BEHAVIORAL OBJECTIVES

Student will be able to identify available resources to assist in his career planning by securing information about occupations through observation, studying, and reading. Student will be able to state information about occupations and their requirements, etc. Student will be able to solve problems concerning a specific occupation in the S.R.A. kit. Student will be able to identify and use available resources which will assist in his career through experience.

ACTIVITIES

Take students to a library and show them where the educational, vocational, and guidance resources are located and instruct them on their usage.

Have students pick a job or cluster they are interested in and have them look up information on this and report to class.

Have vocational counselor and guidance counselor speak to the class on resources, etc.

PROGRAM IMPLEMENTATION

Contact librarian for schedule approval, class discussion, contact guidance counselor to speak to class, contact various teachers (BOE, OWE, DECA, etc.) to talk to class, role-playing situation, acquire video tape and equipment, contact career exploration coordinator for S.R.A. kits.

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have O.W.E. or B.O.E. teachers speak about their programs to the students. (Also DECA, Job Placement Teacher, Career Exploration Co-ordinator, etc.)	
	Role-playing situation: Have students interchange roles of being a guidance counselor and a student. Some student will look up information (as in 2) and another student will ask this person information concerning a vocation to see how well prepared and how much information the other person can present.	
	Have students list resources they know of and add to their lists.	
	Have video tape of someone or group doing research in library, counselor's office, etc. to see the proper way to look up information.	
	Have demonstration of how to use S.R.A. Job Experience Kit and then have students work with them.	

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To see valuable relationship between general school subjects, special training, and school activities with specific occupations, career development, or getting a job.	To provide information concerning relationships between general school subjects, special training, and school activities with specific occupations, career development, or getting a job.
To learn about choosing subjects in relationship to vocational plans.	To help student in choosing subjects in relationship to vocational plans.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Student will be able to designate occupations which relate to specific subject areas.	Have teachers devote a specific amount of time in discussing jobs, occupations, and opportunities relating to their specific subject fields.	Class discussion, contact employers for field trips, contact speakers, gather material for poster contest, games, and role-playing situation.
Student will be able to classify occupations according to their related subject fields.	Individual teachers could take classes on field trips to various business, industrial, vocational and educational centers that relate to their subject areas.	
Students will be able to discriminate between good job qualifications and poor ones.	Have speakers that are related to school subjects speak about their occupations and tell why that subject is important to their occupation.	
Student will be able to indicate which occupations are related to certain subject areas.	Have students list as many occupations as they can think of that are related to that particular subject and list requirements they will need.	

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students check a list of various jobs available and have students decide whether a high school, college degree, or vocational training is necessary.	
	Have students interview various people in some type of occupation and find out what he does, the requirements for his job, what he likes or dislikes, etc. and report it to the class.	
	Have students list what they plan to take in high school the next three or four years and show what jobs would be available and which ones would not be available because of their choices.	
	Have a poster contest where students make up posters on various careers they are interested in and display them.	
	Tell students about college costs at various colleges and how scholarships and educational loans are available through business and industrial organizations, government and state loans, and various clubs in the community. (Resource Guides: "Need a Lift" American Legion Educational and Scholarship Program, Americanism Division, Indianapolis, Ind.)	

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have poster contest where students make posters concerning vocational cluster relating to that field.	
	Have students play "What's My Line" where the "line" is a specific occupation relating to a particular subject field.	
	Have role-playing where student acts as employer and looks over students' records (6 or less) concerning subjects taken, grades, attendance records, etc., and then decides which one would be most qualified for a particular job.	
	Give students a list of certain jobs and have students list what subjects they would need in order to qualify for that particular job.	

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To understand the way part-time work experience influences career development.	To provide information concerning part-time work experience and how it influences career development.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Students will be able to analyze the worth of part-time employment as related to career development.	Have students (11th or 12th grade) who are already working at a part-time job come in to discuss with the students his job, the requirements, what he has learned, etc. A question and answer period may follow. Could be a BOE, OWE, DE student.	Contact upper-class students for talks, contact employers so students may work or observe a job, contact in-service school workers for talks, class discussions, contact worker who has worked his way up from part-time to full-time job with the same company, gather materials for video-tape show, role-playing situation set up "Employment Agency" with school personnel.
Student will be able to replicate activities of various part-time jobs.	Have students be employed with certain business and industry firms for a short time during Career Exploration Week. (This could be for as little as 2 or 3 hours, and if this is not possible, maybe they could observe for serveral hours.) After this experience the students will report back to the class on their findings.	
Student will be able to report his experiences on actual part-time jobs.	Have students who work right in the school (cafeteria) bookstore, office, etc.) come to class and discuss their part-time jobs.	

DEVELOPMENTAL OBJECTIVES PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES ACTIVITIES PROGRAM IMPLEMENTATION

Explain how part-time jobs can later be applied to full-time jobs because they are working there early in an entry job. Class discussion may then follow with students naming various types of entry jobs that may lead to promotion and people they might know who have started out this way.

Have students listen to a person who has been with a company many years and began initially with a part-time job at that particular company.

Discuss with the students the opportunitities for advancement with a company because of part-time work which led to full-time employment.

Have students see a video tape of a particular student in their school or class working at his part-time job and explain his duties.

Have students list part-time jobs they can think of which need no specific training (entry jobs), and have them list part-time jobs which need further or specific training. (May help to clarify the idea that "part-time" doesn't mean anyone can do the job.)

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students do role-playing where the students can all participate in a situation where many jobs may be part-time (such as a restaurant where they could take the parts of waitress, dishwasher, bus boy, cook, cashier, etc.). They could also play "Charades" where in they may act out part-time job duties, and the other students could divide up into teams to guess the occupations.	
	Have students cooperate with school personnel to set up an "Employment Agency" where the students desiring part-time work or in-service work can turn in applications to be considered or talk to a senior or school personnel as an "employment counselor." Students would then be placed according to their qualifications, etc. Possibly parents in the area could list part-time work with the school "agency" and hire students to do work for them.	
	Students could work with various service organizations that need volunteers to help with their programs, such as hospital work, day nurseries, office work, day camps, etc.	

EDUCATION AND TRAINING

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	**ACTIVITIES**	**PROGRAM IMPLEMENTATION**
Student will be able to relate to apprenticeship jobs.	Have students able to talk to an apprentice by having him come to the class and explain his job and what he feels the purpose of the apprenticeship is. Have students visit jobs that are apprenticeships and see how they operate.	
Student will be able to analyze purposes of strikes.	Have students discuss past or recent strikes going on in industry, what are their grievances, and what are their outcomes. "What Would You Do" situation: Have students read a mock situation where a union is considering going on strike naming grievances (some logical and some nonsensible) and have students decide if they want to be union members or management. Then have them decide what they would do if they are management in order to prevent a strike and give reasons why or why not union members would strike.	
Student will be able to reproduce a strike situation.	Role-playing Situation: Have students be in a "union" and present their grievances to a "company". Have a bargaining team set up and have conferences held in order to end the strike. Students	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	**ACTIVITIES**	**PROGRAM IMPLEMENTATION**
	could make posters, etc.	
Student will be able to distinguish among advantages and disadvantages of unions.	Have a union member come to the class and speak on what his particular union is, does, and purposes. A question and answer period will follow.	
Student will be able to report on apprenticeship jobs.	Have students assigned to certain apprenticeship jobs and then let them look up requirements for the job. Have students look up definitions of union terminology, followed by discussion.	

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To acquaint students with post-high school job opportunities at vocational centers and what their requirements and advantages are.	To provide information concerning post-high school job opportunities at vocational centers, explain their requirements and advantages.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Student will be able to list requirements of vocational centers.	Have students go on field trips to vocational centers such as barber schools beauty schools, business colleges, key punch schools, data processing, computer schools, licensed practical nursing schools, etc.	Contact managers of vocational centers for field trips, obtain pamphlets from vocational centers, contact students at vocational centers to come in and speak, class discussions, contact teachers of vocational departments in high school for visits and talks, have student currently enrolled in vocational program in high school give a talk.
Student will be able to compare opportunities for better job placement because of vocational training.	Have students talk with instructors of vocational schools to see how schools operate and what requirements there are.	
Student will be able to analyze advantages of vocational schools or programs.	Distribute literature from various vocational centers and see what requirements are and what job opportunities are available after graduation. Discuss with class what they are interested in and why.	
	Have students who are attending vocational centers come to speak to class and tell them what happens at the school, why they chose to go to a vocational school, etc. A question and answer period may follow.	

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES

ACTIVITIES

PROGRAM IMPLEMENTATION

Give students a list of jobs that require additional vocational training. Discuss why training is needed and where they may obtain the needed training.

Have students visit vocational departments in their high school, possibly let them operate some of the equipment or sit in on a few sessions of the program and report back to the class.

Have a student who is a member of the voctional program in the high school talk to the class concerning the program. Discussion will follow.

ECONOMICS

DEVELOPMENTAL OBJECTIVES

To understand the basic processes of production, processing and distribution in American economy and the importance of human relations in these processes.

PROGRAM OBJECTIVES

To provide information concerning the aspects of business, the basic processes of production, processing and distribution in American work economy and the importance of human relations in these processes.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify concepts of the American system of free enterprise, the circular flow of goods and services, national output and growth, forms of business organizations, money management and changing occupational patterns; he can thus relate these concepts to himself and his future.	Student will make reports (oral and written) on history, current trends, and future outlook of business. The report will include aspects of business, basic process of production, processing and distribution. a. library research b. personal interviews c. broadcast media	Have magazines, papers, and books dealing with business trends available; collect materials for business model; literature on how to develop company policy; contact Junior Achievement for possible membership; construct list of business terms; obtain filmstrips relating to business and economics and contact business representative from personnel department to speak to the class; organize or encourage joining interschool committee on human relations.
The student will be able to replicate a system of free enterprise on a small scale.	Student will organize a business model. They shall buy a product to market, advertise it, sell it, distribute it, and hopefully profit by it.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To understand one's position as a consumer in the economic environment.	To provide information concerning consumerism so that the student will understand his position (as a consumer) in the economic environment.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to name different resources available to the consumer.	Have the student become familiar with the resources available that will aid the consumer in his environment.	Information should be available dealing with the consumer and his problems; contact government official to speak on economics and the consumer; obtain examples of various types of advertising media; arrange for a craft training center for the student's use; information on consumer's purchasing power.
The student will be able to list various methods used by companies to advertise their products to the consumer and what their effects are.	Have the student hear government officials who will inform them of the importance of the consumer's position in the economic environment.	
The student will be able to report on importance of consumer purchasing power and how his money is spent.	Have the student exposed to different methods of the advertising media.	
The student will be able to replicate a system involving company, it's product, advertising, and consumer effects after product has been sold.	Student will bring in different forms or models of advertising and discuss their effects on the consumer.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to analyze patterns of consumption.	Have the student produce advertising slogans, or commercials which will demonstrate the principles of advertising; through class assignment or school wide contest involving actual consumer as evaluators.	
The student will be able to know what happens when an area of consumption falls from high to low.	Students research through papers, magazines, historical texts, interviews, the importance of consumer purchasing power. Specifically the effects of boycotts, strike, depression, recession, inflation, and economic prosperity.	
The student will be able to discriminate between good products and poor products through research.	Have the students trace how and where a consumer's dollar is spent. Have them make an oral presentation using visual aids, etc.	
The student will be able to identify his place as a consumer in this economic society.	Have student go through training in some simple craft. (Have the student pay for this training.) Have them advertize, market and sell the crafts and split the profits. (Crafts could be beads, necklaces, chockers, medallions, etc.)	

ECONOMICS

DEVELOPMENTAL OBJECTIVES | PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students drap a map of their own areas of consumption, compare their map to others, and analyze the trends or patterns of the total area of consumption.	
	Have students pick a fading area of consumption and have him analyze and evaluate why that area went from a high to low area of consumption.	
	Students will brainstorm for ideas to improve that area of consumption so that it could compete with others.	
	Have the students discuss and debate the differences in consumer purchasing power and in relation to consumable and non-consumable products.	
	Have the students pick an item which their family may purchase, find out about it in the Consumer Report, list the advantages, and disadvantages of each brand, price the items of the brands in different stores and analyze their data which will lead up to a choice.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To clarify the relationship between government and economic structure in general.	To provide activities and experiences which will enable the student to understand the relationship between government and economic structure.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify the function of economics as it relates to government.	Students will hear from a government employee who can relate to the student the relationship between the government and the economic structure. Students will list the various government agencies and have them describe the function of each as it relates to our economic structure. Students should become familiar with the gross national product, the factors that determine it, and the relationship of the individual in society to it.	Contact government employee to speak to the class; information concerning government agencies and concerning gross national product, labor laws, taxes, and social security; acquire application blanks for social security cards; information about Armed Forces and their relation to economic structure.
The student will be able to report on labor law and work regulations.	Students should find out what the various labor laws and work regulations are.	
The student will be able to replicate a booklet concerning labor laws and work regulations.	Student should translate laws into easy-to-read and understand booklets or posters.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to report the effect of taxes on the consumer.	Student would research the relationship of industry to the government in regards to: dependence on government for financing, government projects, research and future trends. Student will learn the different types of taxes and will explain the consumer's relationship to them.	
The student will be able to name various benefits of social security and how to apply for social security.	Student will hear from a speaker from the social security administration. Student will list the various benefits under social security and explain each benefit. Student will practice filling out applications for social security cards, after skill is acquired they could apply for a real social security card.	
The student will be able to identify the relationship between government and education.	Student will explore the relationship between government and education. Study for example, new education programs (CEP, etc.), equipment and materials.	
The student will be able to report on the spending patterns of the Armed Forces as it relates to the economic structure of our society.	Student should examine the spending patterns of the Armed Forces as it relates to the economic structure of our country; jobs it provides for society, education it provides for individuals, benefits it provides for veterans.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To develop knowledge of general economic structure as related to the labor forces of our nation, state, and local areas.	To provide activities and experiences which will enable the student to understand the labor forces of our nation, state, and local areas and relating his knowledge of general economic structure.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to name factors simulating vocational opportunities.	Students will research what the division of labor forces is in the city, county, state, and nation.	Arrange time in library for research; contact speaker from civil service commission; obtain filmstrips concerning economics; gather materials for charts, graphs, etc.
The student will be able to construct charts, graphs, tables, etc. which show the divisions of labor forces in the city, county, state, and nation.	After the students have researched the above, have them show it visually through charts, graphs, etc.	
The student will be able to report on civil service jobs and/or name their requirements.	Students will hear speaker from civil service commission talk on jobs in civil service locally and nationally as well as requirements for qualifying for civil service work.	
The student will be able to identify how war and peace affect labor and economy forces in our nation.	Have the students research and discuss the relationship of war and peace to the economy and labor force of our country.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	**ACTIVITIES**	**PROGRAM IMPLEMENTATION**
	A. Have students list jobs caused or promoted by war--discuss reasons why. B. Have students list jobs caused or promoted by peace--discuss reasons why.	
	Students should research and list the changes in our labor forces over the last ten years.	
	Have students analyze the labor force of our community with help from information compiled by employment agencies, job placement coordinators, chamber of commerce, etc.	
	Students will see film-strips that will explain the fundamentals of economics.	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify various methods of obtaining credit, its advantages and disadvantages and how one obtains a credit rating and why a person must have good credit references.	A representative from business and the credit bureau should speak to the students about credit. Students should survey teachers, parents, neighbors, friends, etc. to find out how many people use credit cards, why and what effect it has on them.	Provide necessary information for student to balance and record properly; contact for panel discussion: bank representative, loan associate, realtor, seller and buyer; obtain adding machines and use of cash registers; obtain practice checks and practice money orders; construct story problems.
The student will be able to list the function of attorneys in their role concerning helping people manage their money.	Have student hear from a reputable attorney on the job he does in helping people manage their money. Student will identify the various methods that money can be invested to make a profit. They will list the advantages and disadvantages of each method. Have students write reports or have discussion in relation to developed case studies that would be given to them. These case studies would give actual financial situations and problem of various consumers.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have the student select a particular job that he would like to work at; have them go to some source (Guidance Kits, Occupation Outlook Handbook, etc.) to find out the annual income. Let them determine deductions, list spending patterns, etc., then student will discuss the various spending patterns to see which are practical.	
The student will be able to replicate a system of managing a checkbook, how to fill out checks, and how to manage checks and balances.	Students practice on blank checks, the correct way to make them out. Student will gain experience in balancing a personal checking account. Give them a list of credits and debits. Have them practice keeping an accurate, easy-to-read checkbook.	
	Students shall receive copies of a proposed budget for CEP and then write up individual suggestions for ways and means of spending the money.	
	Have the student get involved in a money-making project.	
	Student should be introduced to the theories of deficit financing.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to report on all the various aspects of buying and selling a house.	Students will hear from a panel of: bank representatives or loan association representatives. They will discuss what actually goes into buying and selling a house. It might be wise to provide as a follow-up a case study of such a transaction based on their parent's income listing all the specifics on such a transaction.	
The student will be able to report on the manipulation of adding machines and cash registers.	After being briefed on their use, students experience working with cash registers and adding machines.	
The student will be able to manage a budget and use money wisely.	Student will see filmstrips on suggestions for using money wisely and then be allowed to work in groups to explain various parts of the filmstrip. After some experience and training these students could act as resource for other classes. Student will think of slogans and advertise them on posters, bulletin boards or signs that will encourage students to use money wisely. Student will make a list of the 10 commandments of using money wisely.	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Students should be allowed to make suggestions for activities for which they think would be a good way to learn to use money wisely, the group will try to carry out this activity and then evaluate if they really did learn how to use money wisely.	
	Students would prepare a list of foods that would have to be purchased for a week to feed a family of four; be given a set amount of money; and be allowed to go to the supermarket and purchase them. After this experience the students would analyze what was the best and most economical buys.	
The student will be able to report on the functions of a bank, how it helps consumers to use money wisely and how it, in turn, uses their money in order to obtain a profit.	Student will go on tour of a bank. Here they will be introduced to the information about the various services of a bank.	
The student will be able to list the advantages and disadvantages of buying stock, what its economic purposes are, and how it may be a method of wise spending.	Student will hear a stock broker talk to them about his work and how people invest in the stock market.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Student will be introduced to the Wall Street Journal, and stock indexes from newspaper.	
	Have students participate in such games as: Stocks and Bonds, Monopoly, High Financing, Park and Shop.	
The student will be able to report on the benefits of insurance, its purposes, and costs.	Have the student hear from various representatives of insurance companies so they can learn to put insurance to work for themselves.	
	Have the students list damages to a car after an accident, get appraisals for getting it fixed, determine the costs of insurance. Have students indicate reasons and/or benefits of insurance.	
The student will be able to replicate the process of making out a money order.	Students practice making out money orders.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To develop an understanding of income procurement with analysis of how security and wages relate to education and training.	To provide activities which will enable the student to understand income procurement and analyze the relationship of security and wages to education and training.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to analyze his broadened economic concepts to the point that he recognizes his vocational potential and his importance in our economic society.	Students will list various jobs, the education and training required, compare it with analysis of job security and wages. Students will try to prove through examples that educational patterns must constantly change to meet the needs of a changing society. Have the students comprise lists of the highest paying jobs, jobs that require the highest training, jobs that offer the most security. Students will hear a union representative address them about the union's role in securing wages, and maintaining job security.	Class discussions; contact a union representative to speak to the class.

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to organize and categorize guidelines which will show human relations policy within a business organization.	Student will design a company policy booklet which will indicate guidelines to foster better human relations within their company. Hopefully they will also design an evaluation system to see how it would work.	
The student will be able to characterize the different roles of management, unskilled labor, union leadership, etc. in a human relations situation.	Student will "brain-storm" on developing better human relations within business.	
	Student will list the various jobs or departments within a company. They will explain the duties of each and explain what important part it has in making profits for a company.	
	Have student join a Junior Achievement Company and contribute in different ways to it.	
	Have student explore the differences between a successful and unsuccessful company or business.	
	Have the student role play management, skilled labor, unskilled labor, union leadership in a panel discussion of	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	**ACTIVITIES**	**PROGRAM IMPLEMENTATION**
	the topic of "Human Relations in Business." Have the student read and report about books concerned with operation of business. Have the student survey the National Progress of Business through comparison of reports in magazines. They will give summary reports of the year's business trends. Have the student list words and terms related to business that are foreign to them, define them, and discuss them, and learn to identify and use them.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To gain knowledge about community agencies in the area and see how they fit in as one of our valuable economic resources.	To provide activities and experiences which will enable the individual to understand why community agencies are a valuable economic resource.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify those resources which can supplement an individual's income or satisfactions and those which can contribute to his protections, his rights, and his environment to the extent that he can make use of or assist in the activities involved in these services when necessary or desirable.	Students will become familiar with Communtiy Economic Resources by hearing speakers and going on tours to various resource locations.	Contact speakers from various agencies and Clearwater, Inc.; have students participate in volunteer programs in the community; have students set up a fund-raising campaign; organize a committee to set up a program on drug abuse; gather materials and contact people from Red Cross Blood Donation Program; organize an Ecology Campaign and gather necessary materials for buttons, films, posters, etc; contact Ohio Bureau of Employment Services for tour.
The student will be able to choose a volunteer job which will contribute to his satisfactions.	Students could indicate their interest areas and join one of the city's volunteer programs. ("Toledo Needs Teens" would give experience in such roles as nurse's aid, candy striper, camp counselor, playground supervisor, babysitter, group leader, teacher's aid, etc.)	

ECONOMICS

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to replicate an actual situation where funds are raised which contribute to his environment.	Students can set up and direct a fund-raising campaign for charity within the school, neighborhood, or community (UNITED APPEAL, CHRISTMAS BASKETS, MARCH OF DIMES)	
The student will be able to reproduce a program that would help to prevent drug abuse.	Students would get involved in doing something to help prevent drug abuse--organize a speaker's bureau, prepare visual aids, compile a list of referral agencies, raise money, etc.	
The student will be able to name some of the problems and activities involved in organizing and directing a volunteer program.	Students could campaign to get people registered and signed up to donate blood to aid the Red Cross through personal contacts, mailing letters, poster campaigns, radio announcements to senior students at schools, teachers, parents, relatives, friends, neighbors, and community.	
The student will be able to construct buttons, films, and posters which relate to ecology and thus contribute to the protection of his environment.	Students will hear a speaker from Clearwater, Inc. (or any ecology agency) and be directed in some sort of ecology campaign. a. Make, sell, and distribute pins or buttons that will remind people about ecology. b. With the proper equipment, go out and	

ECONOMICS

DEVELOPMENTAL OBJECTIVES PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES ACTIVITIES PROGRAM IMPLEMENTATION

film polluted areas of our society.

1. Make this into a film and add narration which will attempt to make people stop polluting.
2. Make large pictures and posters which will help people to remember to fight pollution.

Organize students in school to join the Jaycees, Old Newsboys, or one of the other organizations in one of their broad community projects.

Students will organize a car pool of students and take younger children of an orphanage to the beach, on a picnic, out to the park, sledding, etc.

Have the students tour the various branches of the Ohio Bureau of Employment Services.

Students will work as clerical aids within the schools.

ECONOMICS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To understand and value the complexities of the free enterprise system with other major economic systems.	To provide information which will enable the student to understand and value the complexities of the free enterprise system and be able to compare other major systems to free enterprise.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to identify economic systems which relate to other stystems and to himself.	Students will make comparisons of United States economic system with other economic systems.	Gather information concerning various economic systems, free enterprise, government agencies, welfare, workman's compensation, materials to construct flow chart.
The student will be able to name the advantages and disadvantages of the free enterprise system.	Students will be able to name the advantages and disadvantages of the free enterprise system.	
The student will be able to identify the functions of various government agencies.	The students will be introduced to the history, progress, and future functions of such government agencies as the Securities Exchange Commission, Federal Deposit Insurance Corporation, Federal Housing Authority, etc.	
The student will be able to construct a visual flow chart which depicts the American system of free enterprise.	Students should research and discover the basic facts, qualifications about welfare, workman's compensation, etc. and see if they could compare to anything similar in other countries.	

ECONOMICS

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Students will design and draw up a visual flow chart which would depict the American system of free enterprise (flow of goods, services, national output, etc.).	

EMPLOYMENT AND WORK ADJUSTMENT SKILLS

DEVELOPMENTAL OBJECTIVES

To acquaint students with methods of finding jobs: how to apply (applications, resume and interviews) and where to apply (employment agencies and commercial and state.)

PROGRAM OBJECTIVES

To help students with methods of finding jobs: how to apply and where to apply.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will compare different methods of obtaining a job.	Have the student fill out practice application blanks in class.	Obtain blank application forms, have class write letters of inquiry, research by students, have students actually obtain jobs, contact employers, obtain films, make up sample resumes, have role playing situation, contact personnel at State and Commercial employment agencies for tours, contact person from State employment agency to talk, gather want ads, class discussion.
The student should be able to describe proper ways to fill out application forms. The student will be able to replicate the procedure of job interview.	Have students cut out want ads from the paper and bring them into class. Then role-play a student trying to interview for this position. Let class point out problems with the interview, etc.	
The student will be able to identify the characteristics of a good letter of inquiry and a resume.	Have the student write letter of job inquiry and discuss it.	
The student will be able to report on the procedure of obtaining a part-time job.	Have the students write proper resume and discuss it.	
Students will be able to differentiate between commercial and state employment agency purposes.	Have students choose a job and then try to find out the process necessary to obtain this specific type job. Report findings to the class.	

EMPLOYMENT AND WORK ADJUSTMENT SKILLS

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
Student will be able to analyze classified ads by commercial employment agencies.	Have students actually try to obtain a part-time job. Report to the class the exact steps he took in obtaining this job.	
	Show films in Interviewers. (Three Young Women) Let students point out problems and good points of interview.	
	Bring in sample resumes. Let student decide what information is not needed.	
	From the above resume samples, let students decide what type(s) of job(s) this person could fill.	
	Role-play -- let one student be the employer and have him try to choose one employee from 3 possible candidates, through interviews, resume presented, etc.	
	Have students participate in a field trip to State Employment Agency where the student may see the procedure of applying for a job, and in some instances have pupils participate in looking over jobs and talking to a counselor.	
	Have students listen to a speaker from State Employment Agency give a talk to the class on the differences between commercial and state employment agencies. A question-and-answer period should follow for student involvement.	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have student go on field trip to commercial employment agency and have students actually try to apply for a job.	
	Acquaint student with what fee paid means on a job and what fee really means by showing them a contract for an employment agency.	
	Have students bring in want ads from employment agencies and check wording adjectives used for glamour.	
	Have students call about jobs and see what the requirements are and what is available and what the "come-ons" are.	
	Have role playing after field trip in which students act out parts of unemployed persons and counselors.	

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To learn the characterisitics of a good worker.	To help students realize the characteristics of a good worker.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to report on the importance of both their appearance and manners.	Film of videotape various students working at an actual job (possible in school.) Allow the class to point out good and bad characteristics seen in the workers.	Arrange for film or video tape, have class discussion, have students contact employer or interview someone to find characteristics of good worker, contact employer for part-time jobs or observations by students, arrange for tours of various companies, role-playing situations, contact employer from modeling school and business for speeches.

DEVELOPMENTAL OBJECTIVES

To focus attention on the importance of personal appearance, manners, and respect for others in a job.

PROGRAM OBJECTIVES

To provide information concerning the importance of personal appearance, manners, and respect for others in a job.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to indicate the manners and respect necessary to function well in a job.	List various traits the student thinks are necessary for good workers and discuss. Especially let student express views on things like is it necessary to dress neatly to do good work, etc.	
The student will be able to identify the appropriate dress habits in various companies.	Have student choose one job and find out what will be necessary to be a successful worker in this specific job. Student may interview actual person on the job and then use various resource materials to supplement interview material. Have students work part-time (at least several days) and have the employer constructively evaluate students good work qualities in that specific job. (Be careful not to discourage students from work.) Allow students to tour various companies to view the accepted appearance and talk to management and get their views on dress code, etc.	

DEVELOPMENTAL OBJECTIVES

PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES

ACTIVITIES

PROGRAM IMPLEMENTATION

Let students choose a specific job and find out the necessary appearance and manners to be 100% effective in that job. Report back to the class. Let students agree or disagree with what the student reports.

Role-play in class various situations in which personality conflicts arise among two employees. How should they be handled? Let the class respond after the role playing.

Role-play, have three students dressed very differently. Let class decide which jobs they could fit into and what type that the dress would not be appropriate.

Have the students listen to speaker from modeling school like: Patricia Stevens and a businessman for the boys on appropriate dress, etc.

Bring in "What would you do situations?" concerning improper manners displayed. Let students discuss.

Role-play situation with employees dealing with the public in a complaint situation. How should it be handled?

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To prepare students so they will consider a job in all its aspects; benefits, conditions, etc. and not just salary.	To help students consider a job in all its aspects, benefits, conditions, and not just salary.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to characterize various jobs and the desirability of each and to consider each job in all its phases and aspects.	"What would you do situation?" Give three places of employment with the exact same salary and vary the environment, hospitalization, distance to work from their home, hours, etc. and let the student decide which position would be most profitable.	Make up "What would you do situation?" class discussion, research benefits of companies to present to the class, class discussion.
The student will be able to contrast between something boring and something interesting and compare this to a job situation.	Have students list what they think are "fringe benefits" and discuss. Have students look up various benefits that unions are currently or have in the past gone on strike for. Have students list all jobs that are seasonal and discuss. Discuss in class pay vs. insecurity of a job. Like in professional sports, construction work, high risk jobs, airline stewardess, air pilot, fireman, policeman. Have students interview people in these jobs and positions and find out their feelings.	

DEVELOPMENTAL OBJECTIVES PROGRAM OBJECTIVES

BEHAVIORAL OBJECTIVES ACTIVITIES PROGRAM IMPLEMENTATION

Have students silent and not working for 15 minutes, then have students play Charades for the next 15 minutes. Have students decide which passed faster and relate this to boredom in various jobs like: factory, typist, etc.

Have a Blue Cross-Blue Shield speaker come into the class to speak. Have him give pamphlets and materials out that show costs of various plans and coverage received on the various plans.

Have students survey companies to see how much of their hospitalization is paid for in the company and special plans the company may provide. Report the results to the class.

Discuss the need for hospitalization due to the increased medical costs. Also the costs of paying for your own hospitalization without company assistance.

Have person come in to relate experience of receiving workmans compensation. Why did he receive it? What did he receive?

Have student survey jobs that you must have workmans compensation and why? Explain and discuss jobs that is not necessary to have workmans compensation and why?

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students relate parents experience with workmans compensation.	

EMPLOYMENT AND WORK ADJUSTMENT SKILLS

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To familiarize students with some of the problems of earning a living so that they will prepare themselves to judge adequately and expect (and handle) future job adjustments.	To provide information concerning some of the problems of earning a living so they can be prepared to judge adequately, expect and handle future job adjustments.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
The student will be able to describe benefits of social security and unions.	"What would you do situation?" have students read different situations where they have lost a particular job and it is up to them to decide what should be done (additional training, moving, wife going to work,etc.)	Write up "What would you do situation" contact social security and union member for speeches, have students interview an unemployed worker, gather materials for job tree, arrange for field trips, class discussions.
The student will be able to describe situations which will or may arise in the working world.	Have students listen to a social security worker who would explain to them how social security can help compensate during loss of a job.	
The students will be able to identify jobs closely related to his choice of work.	Have students visit Unemployment Office and interview some of the people who have been laid off their jobs and learn what they are doing in order to adjust to the situation.	
The student will be able to report on various people's alternatives during loss of work.	Have students construct a job tree with the trunk being an entry level job. The tree will then branch out with other related jobs and their training so the students can learn what opportunities are related to specific jobs and how they intertwine.	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Have students learn from union member about benefits given to members during a lay-off or strike.	
	Have students participate in field trips to two different types of companies, one small unautomated and the other a large computerized or automated factory. Have students note lack of people in the latter and talk to the employer about the number of people replaced by automation. Example: small bakery vs. large bread company.	
	Have students analyze a list of occupations and have them tell which ones will possibly be taken over by computers or automation and which ones will always be performed by people.	

DECISION MAKING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To acquire an understanding of the decision making processes, internal (i.e., personal decisions made by the individual,) and external, (i.e., decisions made by the group to facilitate a group goal.) To expand one's awareness and understanding of one's self regarding decision making relative to potential courses of study and career choices.	The school will attempt to provide students with an understanding of the decision making processes based on their increased self-awareness and self-understanding.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
After study of the decision making process, the student will consider alternatives prior to selecting partners for a team activity or project within the class as demonstrated by listing three steps utilized.	Selecting partners for small groups; prior to selecting partners for a classroom team project or activity, the members will discuss alternatives, (factors which influence such a choice: 1. compatability, 2. mutual interest, 3. attitudes, 4. abilities, 5. work habits.)	Teachers will provide a variety of individual and group decision making experiences, as well as a variety of tools and techniques for increasing self-awareness and understanding.
Having had experience in the decision-making process, the class will then consider alternatives prior to selecting group goals for their team project, or activity, by identifying several possibilities before selecting one cluster or area.	Selecting group goals: In order to provide for variety of choices within a structured framework, the various teams of groups will focus on a general area, and then indentify possibilities within that area.	

DECISION MAKING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To experience varied decision-making situations and opportunities to test the outcomes of their decisions.	The school will provide students with a variety of opportunities to test the outcomes of their decision-making while developing an awareness of their responsibilities in this decision-making process.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
In the ongoing sequence of learning experiences, the student will continue to explore situations by identifying opportunities for decision-making.	Construct opportunities for the student to be aware of his contribution in the decision-making process.	Class room procedures will include role-playing and other opportunities to test the outcome of various decision-making situations, which in turn, would lead the student to an understanding of his responsibility in this process.
Having arrived at choices for these various situations, the student will analyze the outcomes of those results as satisfactory or not satisfactory.	Having arrived at decisions, implement them for a trial period. (Example: class procedures devised by the group will be followed for a set period of time.) In a follow-up session, analyze the decisions made. Allow for newer decisions to replace others which were not adequate or satisfactory.	

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To develop an environment conducive to accepting one's responsibility in regard to decision-making.

PROGRAM OBJECTIVES

The school will provide students with a variety of opportunities to test the outcomes of their decision-making while developing an awareness of their responsibility in this decision-making process.

BEHAVIORAL OBJECTIVES

The student will choose a work area, consider employment requirements, and demonstrate decisions made by devising a plan for successful employment.

ACTIVITIES

Invite personnel to school.

In preparation for employment, the students will characterize the job interview through role-playing. Students not participating in the actual role-playing situations would analyze, compare, and define those qualities which make for a good job interview.

Through such role-playing the student will begin to develop an anticipatory concept of work interested in. This concept and that of qualities for a good job interview can be further tested by participating in job interviews conducted in the classroom by professional interviewers from the personnel office of various businesses.

PROGRAM IMPLEMENTATION

Classroom procedures will include role-playing and other opportunities to test the outcomes of various decision-making situations, which in turn would lead the student to an understanding of his responsibility in this process.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES	PROGRAM OBJECTIVES
To evaluate one's own work and that of fellow students constructively and objectively.	The school present opportunities for the student to evaluate his own and fellow students' work. It will also provide opportunities to compare vocational choices with interests.

BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
As part of the ongoing process of evaluation throughout the year the student will analyze the strengths and weaknesses of his individual work and compare and contrast this with work of others in the class, based on criteria previously constructed. Students as a group would periodically re-evaluate these criteria.	As either a class group or as smaller sub-groups the students will work together to construct objective criteria by which they can then evaluate their own work and one anothers. These criteria should be described in both qualitative as well as quantitative terms. By means of a check list of these criteria formulated by the class, students will evaluate their work individually and collectively and this evaluation will be an integral part of the grading process. As students (the group) periodically re-evaluates these criteria, they may construct parallel or separate criteria more specifically related to the world of work.	Teachers will involve students in evaluative tasks as well as provide opportunities for comparisons.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To compare one's tentative vocational choices with his interests, his abilities and available vocational information.

PROGRAM OBJECTIVES

The school presents opportunities for the student to evaluate his own and fellow students' work. It will also provide opportunities to compare vocational choices with interests.

BEHAVIORAL OBJECTIVES

Having previously explored his interests and abilities and having formulated a tentative vocational plan, the student will utilize vocational information sources as a means of reinforcement by synthesizing this new information with what he has already acquired.

ACTIVITIES

The student will familiarize himself with vocational sources information within the school, through the library or resource center and also through utilization of the total school staff as a means of securing occupational information.

Having obtained as much information as he feels he needs at this point in his planning for his tentative career choice, the student will analyze his new knowledge of the requirements, working conditions, rewards and limitations as related to future employment possibilities.

The student will then correlate this added information with his concept of self.

PROGRAM IMPLEMENTATION

Teachers will involve students in evaluative tasks as well as provide opportunities for comparisons.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To utilize means for continuous exploration of the world of work and study of specific occupational fields.

PROGRAM OBJECTIVES

The school will provide the student with informational resources and opportunities through the school library, guidance office and resource centers, as well as refer students to external sources. This will enable the students to explore the world of work and specific occupational fields.

BEHAVIORAL OBJECTIVES

The student will expand his working knowledge of vocational informational sources by extending it to those available beyond the school setting, and continuing to focus on specific occupational fields as related to his tentative career plans.

ACTIVITIES

Investigate community resources: 1) interview with personnel workers, 2) "Hands on" experience in actual work situations (using data processing keyboard in an office setting,) 3) part-time employment (part-time work in a bakery where you produce a product and experience sales work.)

Exposure to community resources through group experiences. Tours to Business and Industry. Use of Audio-Visual Teaching Material provided by external sources such as Industry. Speakers brought into the classroom at student request.

Membership in after-school clubs. Future Nurses Club. Science Club.

PROGRAM IMPLEMENTATION

Teachers will execute plans by which students can visit resource and guidance centers in the school and those sources which are available in the community.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To develop flexibility and anticipation of change as students begin to formulate tentative occupational plans.

PROGRAM OBJECTIVES

The school will provide the student with informational resources and opportunities through the school library, guidance office and resource centers, as well as refer students to external sources. This will enable the students to explore the world of work and specific occupational fields.

BEHAVIORAL OBJECTIVES

The student shall design three occupational plans and investigate the work areas and demonstrate the need for change and flexibility as he narrows his choice of career and reporting changes in the job market.

ACTIVITIES

Discuss occupational plan with both employer and employees of the particular field of choice.

Compare this information with facts and material gathered by other class members and previously determined knowledge.

PROGRAM IMPLEMENTATION

Teachers will execute plans by which students can visit resource and guidance centers in the school and those sources which are available in the community.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To identify sources of guidance during and after high school and other resources and to evaluate their effectiveness on rendering assistance when educational or occupational plans are changing.

PROGRAM OBJECTIVES

The school will provide the student with informational resources and opportunities through the school library, guidance office and resource centers, as well as refer students to external sources. This will enable the students to explore the world of work and specific occupational fields.

BEHAVIORAL OBJECTIVES

The student will utilize various guidance resources in the school system as well as available community guidance resources and will formulate a plan by which he can obtain assistance from those which would best meet his needs as educational and occupational plans change.

ACTIVITIES

Small groups will discuss available printed information as a guide to focusing on the awareness of occupational change (use of Occupational Handbook and information from U.S. Bureau of Employment.)

Visits will be made to local employment agencies and as a result, students will realize the changing job market.

The newspaper, news media and other printed material will be a source for further job information.

Utilizing this more comprehensive knowledge of the changing job market and available community resources the student will determine which agencies

PROGRAM IMPLEMENTATION

Teachers will execute plans by which students can visit resource and guidance centers in the school and those sources which are available in the community.

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	can offer him the most assistance and formulate a plan for attaining this as his educational and occupational plans change.	

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To realize that economics and other factors influence freedom of choice but that the individual will be happiest and most successful in an occupation which matches his own interests and assets.

PROGRAM OBJECTIVES

The school will encourage students to consider economics and other factors and their influence upon choice of a career.

BEHAVIORAL OBJECTIVES

Synthesizing his information of the changing job market and local job opportunities, the student will compare those choices in which he will feel he will be happy and successful with economics and other factors which might influence his choice.

ACTIVITIES

Small groups will discuss the factors which contribute to personal job satisfaction and success.

The class as a whole will then collate their knowledge of job satisfaction and success as it is related to economics and other factors (for example: automation, job phase outs, population mobility, standard work day, "concept of disposability as a way of life", etc.)

PROGRAM IMPLEMENTATION

Classroom discussion with focus on current and future economic trends and other factors that will influence career choices.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES

To becomes aware of the need for planning future careers and making educational and vocational plans.

PROGRAM OBJECTIVES

The school will urge students to continually expand their awareness of the changing job market and consider flexibility as a criteria for future educational and vocational plans.

BEHAVIORAL OBJECTIVES

The student will deal with the need for long range planning by recognizing that supply and demand in the labor market are subject to continued change and immediate vocational plans may be viewed as stepping stones to more direct career goals.

ACTIVITIES

Through class discussions introduced by films or tapes or survey of news media, the students will consider and discuss the changing labor market in general and how it will effect them in later years.

Individually, students will anticipate its effect upon their career choices by viewing them as possible stepping stones to other careers that may eventually be in more demand then their first choice. Each student will them formulate a work cluster centered around his particular area of interest.

Students can compare their lists of clusters as a means of reenforcing their picture of the changing labor market.

PROGRAM IMPLEMENTATION

Teachers will present current audio-visual students thinking toward their utilization, as the student perceives future careers in regard to future educational and vocational plans.

DECISION MAKING

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
In making decisions relative to potential courses of study and career choices, the student will attempt to formulate a plan by identifying his interests, abilities, likes and dislikes and any other factors which he considers pertinent to such decisions.	Formulate a plan for choosing potential courses of study and investigate potential career choices based upon his ordered list of factors he has identified as important to him. Identify interests, abilities, likes, dislikes. Utilize structured means. 1) interest surveys, 2) evaluations (by self and others), i.e., grades, opinions, parental comments, results of any aptitudes and/or achievement tests he might have taken, 3) discussions--re: extra-curricular activities, and to the student's expressed self-image and values. Classify--according to the students' priorities: 1) clarify concept of personal priorities through discussion, 2) list those factors discussed which he considers important and arrange them in a pattern according to his priorities. Cluster or Range of Activities: in preparation for class trips or guest speakers (example: investigating community resources, selecting, organizing, planning, etc.	

DEVELOPMENTAL OBJECTIVES		PROGRAM OBJECTIVES
BEHAVIORAL OBJECTIVES	ACTIVITIES	PROGRAM IMPLEMENTATION
	Specific skills: Typing speed, math accuracy, debate or discussion skills. Content: Science: Experiments, Math: Application of Math operations, English: Topic for composition, History: Periods in history, etc.	

APPENDIX F

Simulations for Subject Disciplines

C.E.P. - Ninth Grade

During the ninth grade, students should be exposed to job activities within subject disciplines. A major emphasis should be placed on providing as many possible "mini simulations" within the classroom which relate to the desired academic disciplines being taught.

The following portion of the suggested outline gives a sample of a simulated activity which is taught in the Math block and one sample lesson to be covered in the English curriculum.

If the C.E.P. curriculum guide is to be developed and used by classroom teachers, examples of unit outlines must be made available. (A simple list of suggested activities will not provide the teacher with simulated teaching methodology.) Therefore, it is recommended that complete units be developed to provide the teacher with a step-by-step procedure to accomplish the desired simulated learning experience.

Following the Math simulation outline, a series of suggested simulation activities are presented. They are not complete, but they are intended to point out that vocational math skills can be taught within the Math discipline using simulation methods to provide relevancy.

C.E.P. 10th Grade

Simulated activities offered in the tenth grade attempt to provide a situation which will enable the student to develop a "feel" for the occupational cluster. These simulations are narrower in scope and center on the actual occupational activities. Unlike the ninth grade simulations the emphasis is placed on the job environment rather than the learning of an academic discipline.

The purpose of the large concentrated simulations is to enable the student to perform simple job activities within a controlled environment. Some semi-skill development will be taught, but only to insure a simulation which will enable students to experience duties of the job cluster. Negative aspects of the job are to be included in the simulation. These aspects are not related to the student as being negative. The determination of a negative job aspect is to be made by the student for what is negative is not a teachers role to point out.

To a student a negative job responsibility may not be negative and not a detrimental factor for him to consider.

Tenth grade simulations can be developed by the school system through utilization of teaching personnel's post job experiences. For example, the course outline on health careers was written by a Distributive Education teacher and a Guidance Counselor who both had the common experience of working as orderlies in a hospital. It is recommended that teachers develop outlines for job clusters which they are familiar with rather than using a research method that will not center in on job duties and repetitions. If teacher experiences are limited, call for outside assistance in the writing of course outlines and their instructions. The problem of teachers lacking job experiences in some of the cluster areas could be overcome by state supported summer workshops for development of course outlines.

Adding Greater Relevancy to Simulations

At the end of simulations whether they are at the ninth grade or tenth grade level, an attempt should be made to allow students to experience the job tasks in its actual environment. Experience of this type can add value to the learning in short experiences. A two hour experience at a cashier's checkout station in an assisting capacity would be helpful for a student to determine the personal desirability of such a job. The student, based on her exposure to balancing out methods in math, would assist the cashier in balancing out the register. She could also bag purchases but because of skills involved would not be able to activate the register.

It would be the responsibility of the C.E.P. coordinator to find community businessmen who would be willing to cooperate, schedule student experience time with guidance and arrange transportation for students.

Students would choose community experience based on exposure to job activity as presented in the ninth and tenth grades. A maximum number of simulations per student should be established to prevent a "free day" attitude developing among students.

Simulation For Mathematics

The following activities are suggested to be incorporated into a ninth grade general math course of study. The purpose of the activities is to introduce data through the senses in order for students to catagorize, organize, and make decisions related to the appropriate stimuli and concepts of mathematics. In this approach, an attempt to give relevance to math concepts and job performance is the goal of the teaching unit. Math skills taught in this manner offers an insight to job activities while making the subject more relevant to the student.

The unit on cashiering is an example of a complete simulated activity as it would be offered within the mathematics curriculum structure. A major emphasis is placed on student activities related to how a cashier balances out her account. Students are gaining an insight to job duties relative to cashiering, but are also learning a job activity related to any job area which requires the employee to balance an account.

The first section of the unit is devoted to teacher activity which is necessary to teach the desired math concepts. After the teacher completes the instructional segment, the student will work two individual simulated problems in balancing an account.

The remaining activities are suggested teaching units which allow math concepts to be taught in a manner which is relevant to job performances. They are sketchy at best and should be developed in a manner similar to the example simulation on balancing a register account. The instructor should teach the concepts and follow up by allowing students the experience of solving simulated problems which are presented through the senses.

A Suggested Unit Activity in Mathematics Involving Simulated Cashier's Problems in the use of the cash register.

CONCEPT	METHOD
1. The cash register: a. Parts and function	Instructor will use a transparency to show parts. Identify parts by common name. List on the chalk board the name of those parts not readily identifiable from the transparency. Have students write name and purpose of all parts.
2. Purpose of the cash register	The instructor will explain to the class the general purpose of cash register. a. It is used to store money safely. b. It is used to record each individual sale on a tape: (1) by clerk making sale (letter) (2) by date (number) (3) by department (number or letter) c. It is designed to keep a running account of all the day's transactions.
3. Math related concepts: Addition	Here the instructor will show the students an actual cash register. She should: a. Take the tape and have the pupil recognize the amount of sale, the date of sale, the department and the clerk making the sale. b. Have the students list these things in column fashion.

Amount of sale Date

c. Instructor should explain: The register sales tape can be used for comparison and to determine volume. Here the instructor should demonstrate the comparison factor and the volume factor. The instructor should emphasize the department number is important in this as a math concept when it comes to making accurate comparisons and also for determining a salesman's amount of commission at the end of the day.

4. Math concepts:
Percentages
PROBLEM EXAMPLE:

2000.00	TOTAL SALES
1200.00	SALES CHARGED
800.00	CASH SALES

1200.00 ÷ 2000= 60% SALES CHARGED

Have the pupil take the list of daily sales made previously and total such for the week. Record by salesman and department. Have the pupil indicate what the percentage of sales were cash, and what percentage was charged.

5. Math concepts: percentage, and addition of decimals
   1. Hours worked = 8
   2. Hourly wage = $2.22
   3. Base pay = 8 x $2.22= $17.76 daily
   4. 200.00 sale x 4%=? commission
   5. 3 + 4 = days earnings

Have the pupils determine the amount of commission received by each salesman. Have the pupils determine the total weekly salary of each salesman (commission plus basic salary.)

6. Math concept:
Addition, subtraction

Amount of tax in total

Total = $2346.78
.045% tax = .045

Have pupils count amount of cash coupons, checks, voids, receipts in tray for one day and add. This sum minus the amount in the register at the beginning of the day should equal amount on the tape when the "z" total is given.

MATH CONCEPTS

Math logic, addition, subtraction, organization, and interpretation

CONCEPT	METHOD
Balancing out registers	Use transparency #1 on overall view of a cashiers balance worksheet.
Cashiers must have a logical knowledge of mathematics.	Statement: Cashiers must meet responsibilities related to their job which many people are not aware of. Their machines do not do all of their work! One of their duties is to balance out at the end of the work day.
Balancing out determines overs and shorts.	Question: What purpose does balancing out serve? Answer: To determine whether the register is over or short. Statement: The form you are viewing now is a type of form used to balance out. Many different types of forms are used by business firms, but the same principles apply. Place transparency #2 on overhead -- upper portion of form. Explain the following:
1. Current register reading	Line 1 is labeled current register reading which is the reading at the end of the work shift -- write 29,968.37 on your work sheet -- write on transparency.

2. Previous register reading	The previous register reading is the reading at the beginning of the work shift -- write 29,011.85 in this space. Write on transparency.
3. Difference	Find the difference and write it on the third line. Write the answer in after class finishes subtracting 956.52.
The difference between lines 1 and 2 is the total amount of register rings.	Find the difference and write it on the third line. Write the answer in after class finishes subtracting 956.52.
Register Change	Every cashier is given a fund to make change from at the beginning of the shift. She is responsible for this amount at the end of their shift. Write 150.00 in line 4. This is what she started the day with.
Lines 5,6, and 7.	In some situations cash or change is transferred to her register for change making. In this problem there were no transfers.
Total	Total lines 3 and 4 and enter the sum on line 8. (Wait for answer from class) Write 1106.52 on the transparency.
Refunds and over-rings.	Place transparency #3 on overhead. Refund and over-ring form.
Mistakes are common. Cash registers cannot subtract.	Explain following on transparency: Cashiers are bound to make errors while ringing-up merchandise. When mistakes are caught, they are rung correctly and the over-ring is subtractred by hand on the register receipts. Point to amounts of over-rings on the form and explain:

Over-rings remain on the register tape and must be accounted for.	The cashiers make notations of over-rings on a form and they are totaled at the shifts end. The sum of over-rings indicate what was rung on the register for which no money was received.
	Direct class to total the amount of over-rings and returns.
	Place transparency #2 on overhead and wait for class to finish problem.
Line 9 -- less refunds and over-rings	
Mistakes are accounted for on a regular form.	Reemphasize to class: The $8.25 represents the amount which was rung on the register by mistake. Because $8.25 was rung for which there is no money, the cashier accounts for it as a mistake and is not expected to account for it in cash.
	Subtract line 9 from line 8's total and record on line 10.
Total to account for line 10.	Write answer on line 10 -- 1098.27.
	Line 10 is the amount of money the cashier must account for.
	The remainder of the form is how she accounts for her ring-ups.
Cash pick-ups	Place transparency #4 on overhead -- lines 11-20 of the form.
	During the shift a cashier will have sums of money picked up from her register.
	Question: Why are cash pick-ups made?
	Answer: To prevent large sums of money accumulations in the register.

CONCEPT	METHOD
Register money is periodically picked up and placed in the store safe.	After register money is picked up, it is signed for and placed in the stores safe.
Cash pick-ups must be signed for.	Question: Why is it important for the cashier to have the person making cash pickups sign her balance sheet? Answer: It acts as a receipt for money not in the register.
Line 24 - Welfare Sales Various denominations of welfare stamps.	Statement: Persons who are on welfare can buy welfare stamps which, like coupons, are counted as a form of money when the cashier balances out. Write on transparency and make statement to class. The total of welfare sales is $23.50 -- enter this on line 24.
Line 26 and 27	There were no charge sales and there were no special transactions which would be entered on line 26. Place transparency #5 on overhead.
Total accounted for	Line 27 is what the cashier can account for in the cash register. It is found by totaling (point out on transparency) lines 11, 12, 13, 21, 22, 23 and 24. Total these entries and initial lines 11, 12, 13 and write the cash pick-up amounts: 300.00 250.00 300.00

CONCEPT	METHOD
	Direct class to enter these amounts on lines 11, 12, and 13 (DO NOT TOTAL)
Remaining lines (14-19) are for cash pick-ups	No further cash pick-ups were made and for our problem the cashier did not transfer money to any other register.
Cash and Register	Place transparency #6 on overhead (lower portion of form)
Determined by actual count	Explain to class that the cashier counts all change and bill denominations at the shift's end. The cash in register was as follows--write on transparency and have class enter on their forms and total on line 21.
Line 21 -- total in register at shift's end.	Answer: 206.20 is the amount of money in the register.
Line 22 -- cash paid out	Statement: Some stores pay deliverymen bills out of the register. Receipts are kept in the register and are used when balancing out. Write 12.00 on line 22.
Line 23. Coupons	Statement: Manufacturers of products give coupons worth money to try their product. They are treated as money and counted to balance out. The total of coupons in the register is $6.57. (Write on transparency and have class make entry on their form) Place your answer on line 27. Answer: 1098.27.

CONCEPT	METHOD
Comparison of line 27 with line 10	Question: What does line 10 of the form represent? Answer: The amount the cashier had to account for. Question: What does line 27 represent? Answer: The amount the cashier can account for. 1. Cash pick-ups 2. Register cash at shift's end 3. Cash pay-outs 4. Coupons 5. Welfare sales
The difference between lines 10 and 27 determine whether the cashier is over or short.	Statement: By comparing lines 10 and 27, the cashier determines whether her account is over or short. Our problem has balanced our perfectly.
Overs and shorts are more common than a perfectly balanced sheet.	Statement: In most cases the account will either be over or short.
Line 20 - Overs and shorts.	Point out on transparency and make statement. Overs and shorts are entered below line 27 in the appropriate box.
Overs and shorts are allowed as long as they do not represent too great a difference.	
Simulation Kit.	

CONCEPT	METHOD
It is recommended that teachers make simulation kits by obtaining forms from local stores, checks from local banks, and using simulations for money, coupons, etc. The problems are listed on the following pages.	Pass out simulation kits which contain balancing out problems. Students will take information found in kit and solve the problem.

1.	Current Register Reading	29 968	37
2.	Previous Register Reading	29 011	85
3.	Difference	956	52
4.	Add Register Change	150	00
5.	Transfers from Other Registers		
6.			
7.			
8.	Total	1106	52
9.	Less Refunds and Overrings	8	25
10.	TOTAL TO ACCOUNT FOR	1098	27

Cover this form in classwork and relate concepts to students.

Cash Pick Ups Sign Below

11.				300	00
12.				250	00
13.				300	00
14.					
15.					
16.					
17.					
18.					
19.					
20.	Transfers to Other Registers				
	Cash in Register				
	Pennies	1	73		
	Nickels	2	25		
	Dimes	3	70		
	Quarters	5	25		
	Halves	1	00		
	Total Coins	13	93		
	Paper Money	161	00		
	Checks	31	27		
21.	Total Cash in Register			206	20
22.	Cash Paid Outs			12	00
23.	Coupons			6	57
24.	Welfare Sales			23	50
25.	Charge Sales				
26.					
27.	TOTAL ACCOUNTED FOR			1098	27
28.	Difference Between Line 10 and Line 27	Line 27 Short			
		Line 27 Over			

I hereby Certify that the Above Cash Proof is Correct

Signature ______________________________

PLACE STORE STAMP ON BACK

Suggested Activities

Kit: Paper and coin money; redemption and welfare coupons, check; and receipts.

Use inexpensive or free materials obtained from local stores, students' homes, etc.

I. Problem - Over (Lines 10 and 27 are different)

1.	Today's		$76,993.52		
2.	Previous day		76,234.18		
3.			759.34		
4.	Change		150.00		
8.	Total		909.34		
9.	Refunds and Over-rings		5.82		
10.	Account for		$ 904.52		
11.	Cash pick-up		$ 300.00	(Lines 5,6 and 7 not used)	
12.	Cash pick-up		300.00		
	Cash in register				
	Pennies		.40		
	Nickels		2.45	Paper money	
	Dimes		5.00	Twenty's	-3
	Quarters		11.75	Tens	-6
	Halves		1.00	Fives	10
	Total		20.60	Ones	13
	Paper money	83.00			
	Checks	44.73			
21.	Total cash in register		248.38		
22.	Cash paid out		37.59	(Lines 25, 26 not used)	
23.	Coupons		4.30		
24.	Welfare sales		14.50		
27.	Accounted for		$ 904.77		
			904.52		
28.	Over		.25		

II. Problem - Short Register tape readings

1.	Today's	$372.738.10		
2.	Previous day	371,619.45		
3.		1,118.65		(Lines 5,6 and 7 not used)
4.	Change	150.00		
8.	Total	1,268.65		
9.	Refunds and Over-rings	7.13		
10.	Account for	1,261.52		
11.	Cash pick-up		$300.00	
12.	Cash pick-up		350.00	(Lines 13-19 not used)
20.	Transfers to other registers		400.00	
	Cash in register			
	Pennies	$ .55		
	Nickels	2.20		
	Dimes	5.10		
	Quarters	11.25		
	Halves	1.50		
	Total	20.60		
	Paper money	118.00		
	Checks	30.26		
21.	Total cash in register		168.86	
22.	Cash paid out		28.93	(Lines 25 and 26 not used)
23.	Coupons		2.50	
24.	Welfare sales		11.00	
27.	Accounted for		1261.29	
28.	Short		.23	

Paper money	
Twenties	1
Tens	6
Fives	6
Ones	8

Note: Subtract
line 10 = $1,261.52
line 27 = 1,261.29
Difference .23

Hourly Rated Employees -- Day Work

Hourly rated employees are paid only for actual hours or parts of an hour worked, late time is not paid.

Continental time: (Show transparency #1)

Point out to students that regular and continental time are the same until 12:00 noon.

Question: How do they differ from 12:00 noon until midnight?

Answer: Continental time continues as in progressive counting (e.g. -- 12, 13, 14, etc.) regular time starts over after 12:00.

Continental time is read by tenths of an hour instead of hundredths as regular time is read.

Comparison of Minutes vs. Hundredths of an hour (Show transparency #2)

Point out to students that six minutes regular - .1 continental time.

Rings on a clock card are read in tenths of an hour.

Reading Clock Card

Pass out clock cards to students (3 to a student.) NOTE: A local industry may supply cards.

First shift rings -- (in) 7:00 -- (out) 15.50. Any ring after 7:00 is late and deducted from 8.0 hours.
Have students write in rings on clock cards.

(See sample clock card)

In rings: 8:27 7:00 8:32 7:25 7:32 9:45 9:27
or 7:01 8:44 9:42 7:38 9:22 8:41 7:53

Have students determine hours and tenths late.

Answers to above:
1.3 0 1.4 .3 .4 2.5 2.3
.1 15 2.5 .4 2.3 1.5 .6

NOTE: Students may use transparency #2 as a guide.

Computing Hours Worked from Clock Card (See sample Clock Card)

Formula #1 -- total hours	-	late time	=	time worked
8.0	-	1.3	=	6.7

NOTE: Rings from 7:00 - 15.50 include .5 for lunch. Lunch time is subtracted from hours worked. (e.g. -- 15:50 - 7:00 - .5= 8.0 worked.

Formula #2 -- Outring - inring= hours inc. lunch-lunch=hours worked
15.5 - 8.3 = 7.2 - .5 = 6.7

Have students compute hours worked for each day.

Alternate Activities

1. Have students extend daily hours to weekly hours worked.
2. Have students read rings for employees who ring out early.

(e.g. --	14.22	13.21	15.27	13.57
regular outring	15.5	15.5	15.5	15.5
out early	14.2	13.2	15.2	13.5
net paid	1.3	2.3	.3	2.0

3. Students compute daily pay.

daily hours worked	x	rate	=	daily pay
8	x	2.56	=	$20.48

4. Students compute weekly pay.

weekly hours worked	x	rate	=	weekly pay
39.6	x	2.80	=	110.88

Related Jobs

1. Timekeepers
2. Timestudy and motion
3. Negotiators -- union and company
4. Data processing, programmers, systems analyists
5. Payroll clerks

SAMPLE TIME CARD

First shift 7:00 - 15:50

Student's Name					Dept. 735	C. C. 23
8:27	7:00	8:32	7:25	7:32	9:45	9:27
15:50	15:50	15:50	15:50	15:50	15:50	15:50
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Hrs. 6.7	8.0	6.6	7.7	7.6	5.5	5.7

Simulation for Industrial Arts

This unit suggests activities for the first three of 18 suggested areas.

(Electronics, Electricity, and Masonary)

Introduction

This unit is designed to be used by the Industrial Arts Department in the ninth grade one period a week for eighteen weeks to expose the student to eighteen occupations in the Trade and Industrial field.

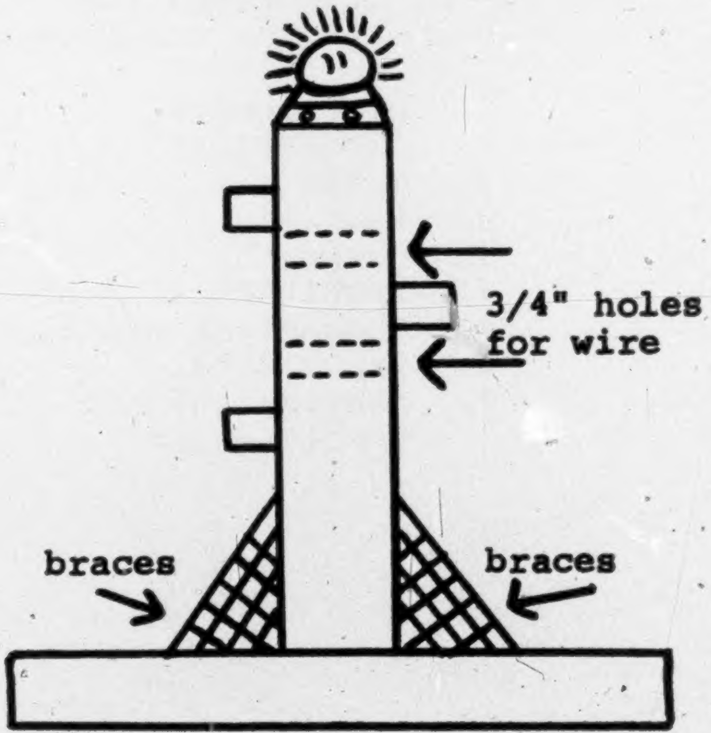
It is advisable to have a professional in each field to put on the demonstration in his field if possible. Professionals can be contacted through local industries and union offices.

Either the professional or the industrial arts teacher should furnish the materials required for the demonstration.

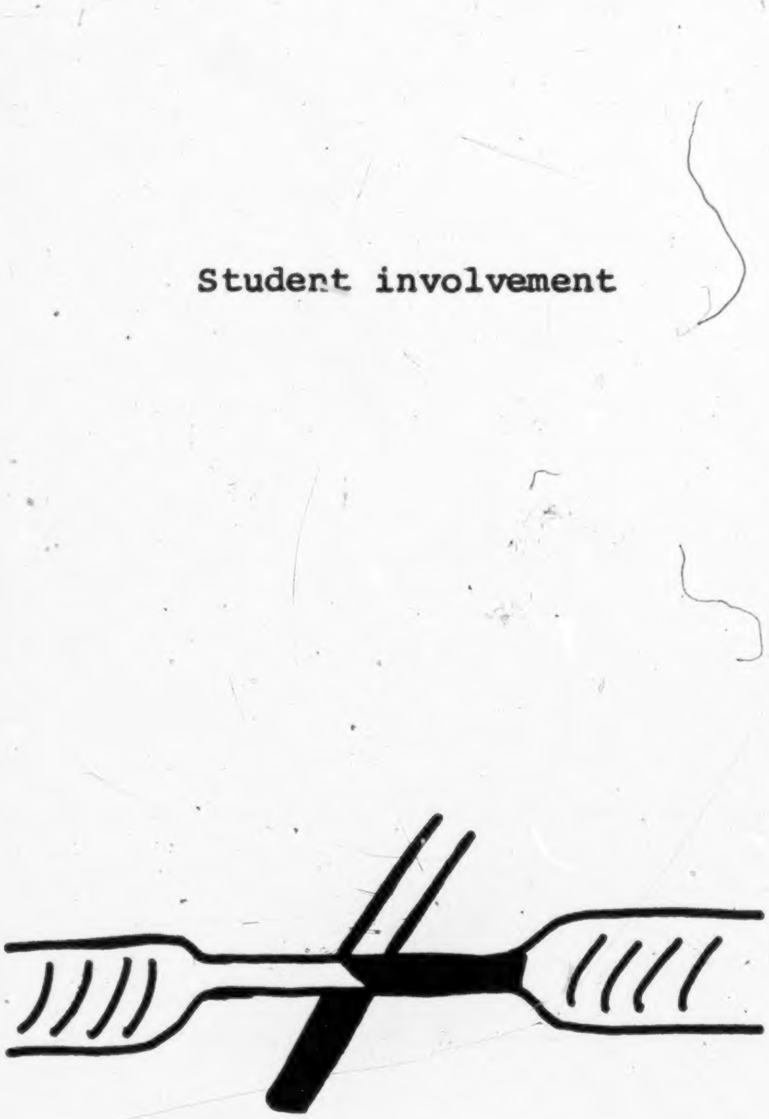
Always involve the students in the demonstration as much as possible.

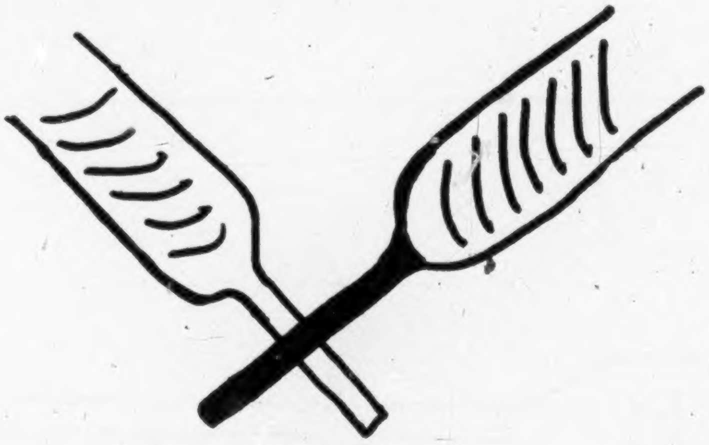
The occupations to be covered in this unit are listed below in the sequence in which they should be presented:

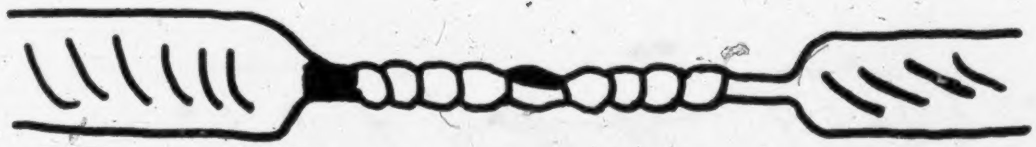
1. Electronics
2. Electricity
3. Mason
4. Plumbing
5. Carpenter
6. Architectual drafting
7. Mechanical drafting
8. Sheet metal
9. Heating and Air Conditioning
10. Welding
11. Auto Body
12. Auto Mechanics
13. Transportation
14. Mold Making
15. Machine Trades
16. Pattern Making
17. Foundry
18. Graphic Arts

CONCEPT	METHOD
Electricity (house wiring)	Equipment: one four point switch, two three switches, three switch receptical boxes, one light base and receptical box to fit, 12 ft. #14 wire, one foot stranded #14 wire, one - 110v. male plug, nails for receptical boxes, staples for wire, screw driver, side cutters, wire stripper, 3/4" wood drill and brace, electrical tape, two 2 x 4's four feet long, 20 feet of #18 wire. Procedure: Have 2 x 4's nailed and receptical boxes positioned as per sketch before class period. #18 wire cut to 6" lengths and ends stripped back 1 1/2". 

CONCEPT	METHOD
	Electrician demonstrated to the students the procedure for wiring multiple switches to control lighting. After electrician has wired up unit, plug into outlet and show students how multiple switches can control the light.
Student involvement	Unplug unit and allow students to dismantle unit and rewire if time allows.
	While a few students are working on unit, pass out two six inch lengths of #18 wire to each student and instruct them on how to make three basic splices: the Western Union, the Pigtail, and the Tap or Branch.







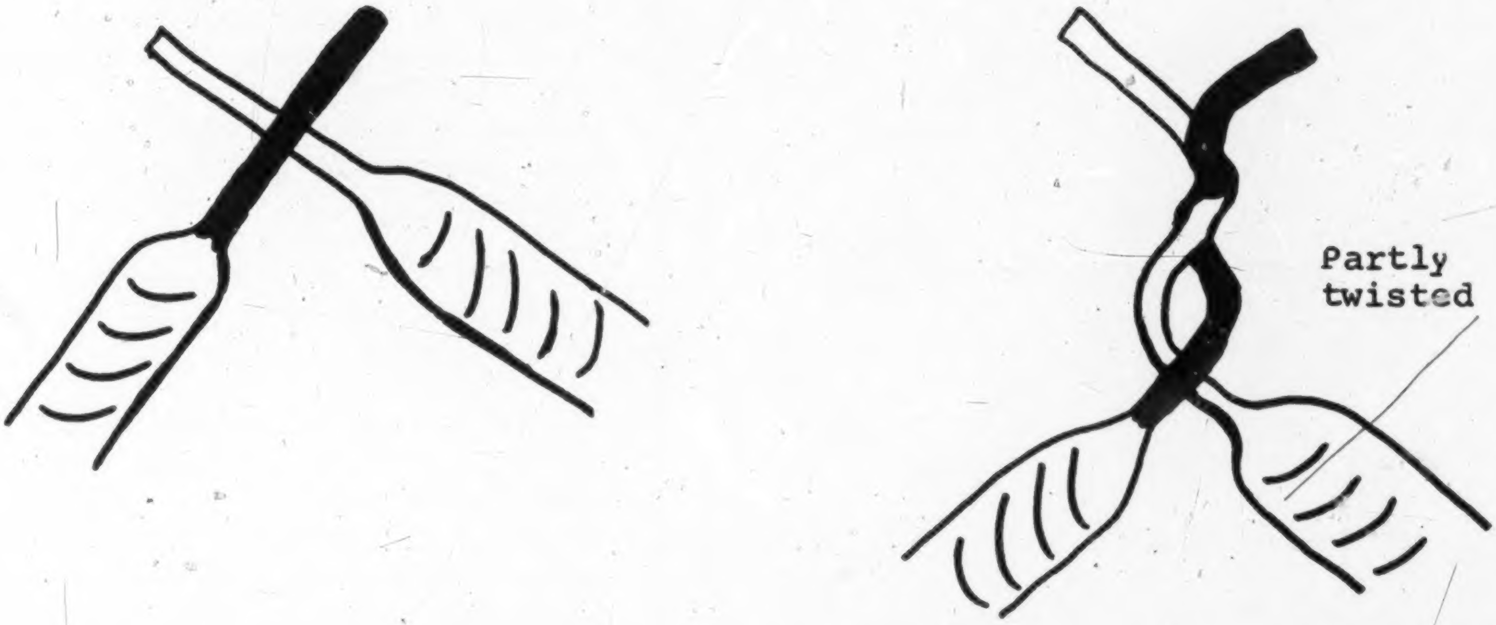
WESTERN

UNION

SPLICE

PIGTAIL

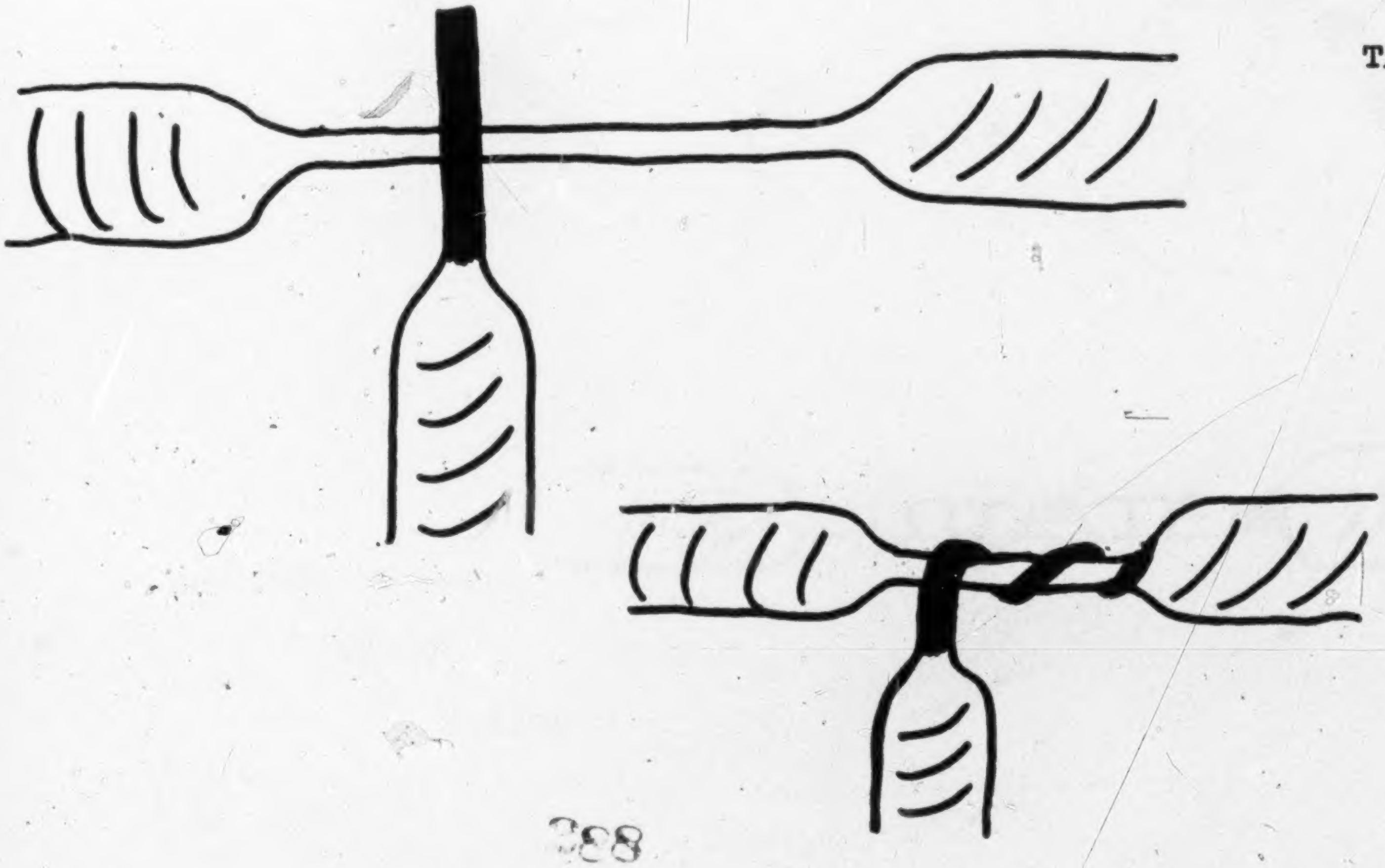
SPLICE


Partly twisted

TAP OR

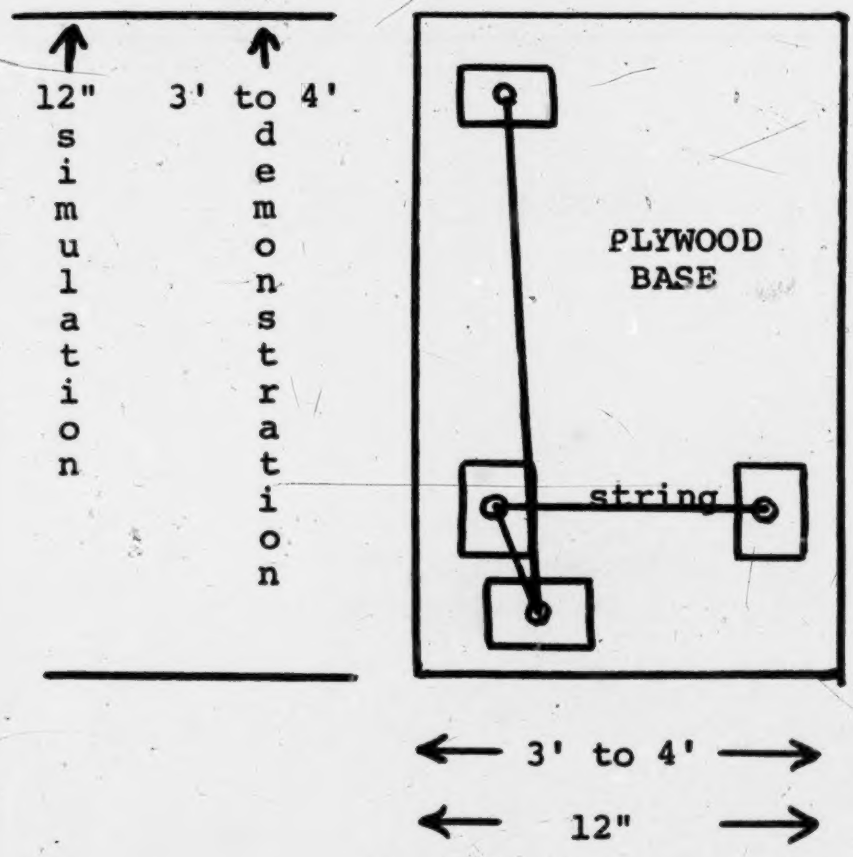
BRANCH

SPLICE

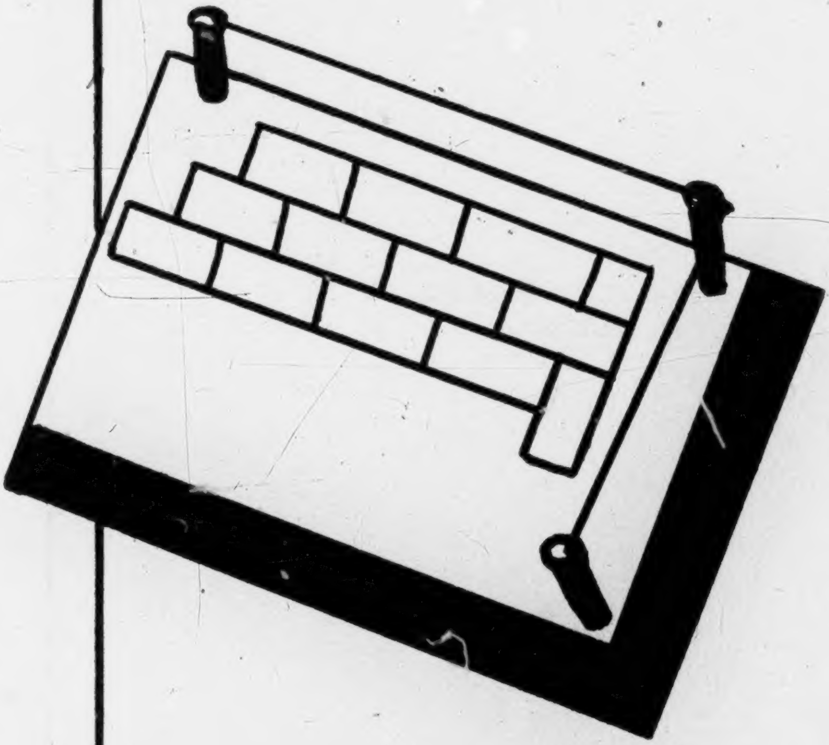


CONCEPT	METHOD
	Discuss various jobs electricians will get involved in.
Masonery	Equipment: Plywood bases, stakes, string, mortar, bricks, trowel, tool for mixing mortar, small wooden bricks, art clay or some similar material for mortar for individual students use.
Instruction to Demonstration	NOTE: It is recommended that a brick layer or someone familiar with the trade demonstrate with actual bricks and mortar, and explain the construction of a single corner. The students will at the same time construct with the small wooden bricks a similar corner. In all simulations, the constructed units should be taken apart before the mortar sets up and the materials cleaned for reuse. NOTE: The following is a simple sketch of a plywood base that could be used for the demonstration and simuations.

Wooden block and dowell stake mounted to base.



CONCEPT	METHOD
Demonstration	Procedure: Have bases prepared before the start of class, with stakes mounted in place and string line attached. Have the brick layer or qualified person demonstrate mixing the mortar, explaining the materials used and ratio of each. Have the brick layer demonstrate laying the first course, explaining the use of the string as an aid in keeping the bricks straight and level.
Student simulation	Have the students lay a course with the small wooden bricks using the same procedure as the brick layer.

CONCEPT	METHOD
	Have the brick layer and students continue laying additional courses until the course is completed. NOTE: The following is a simple sketch of the finished course. 
Discussion	Allow time at the end of the class for the tradesman to discuss his trade, and for the students to ask questions. Allow time for the materials to be cleaned for future use.
Electronics demonstration	Equipment: A defective small tube radio, a defective black and white TV, one set of new tubes for the radio and IV and one set of defective tubes for the radio and TV, tramsostprs. dopdes. transformers, meters, a tube tester, solder, flux, and soldering iron.

CONCEPT	METHOD	
Student involvement	Procedure:	The radio and TV are turned on to see and hear their condition. The students then remove a tube and take their turn to check it. If the tube is defective, the student selects and tests a new tube that is the same number as the defective tube.
Reading Wiring Diagram	——	When all the students have a good tube, they are shown the wiring diagram inside each of the sets. They then follow the diagram to replace the tubes in their proper positions. The sets are again turned on. If they do not work properly the other components are checked with the meters. Defective parts are replaced.
If presented by a non-electronics teacher --	——	The defective tubes are passed out to the students. Each student takes a turn exchanging the defective tube for the good one. Then the class listens or watches for the effect.
If presented by a professional repairman --	——	If a professional person is giving the demonstration, he could remove one of the other components and replace it with a defective unit so the students can note the effect.

Simulation for Social Studies

To simulate job traits performed by people in the Law and Law Enforcement area of Work; also Community Work, and Civic Work.

Object: To teach the pupils some of the requirements of a job in the law enforcement area. The instructor will need to be knowledgable himself about this area before he goes deeply into this kind of activity so as to avoid the pitfalls of wrong interpretation.

1. The instructor should introduce the pupils to this area by a thorough preparatory lesson based on some of the following activities:

   A. trip to a county court house
   B. trip to a county jail
   C. trip to U. S. Court
   D. trip to City Hall and city courts
   E. Speaker from some law firm, law enforcement area, P.A.L., or probation officer.

2. The pupils would be expected to do the following while observing these activities:

   A. Take notes on duties of workers at any facility they visited or speeches they heard.
   B. Determine the various divisions of the work area.
   C. Interview (if possible) a court clerk, sheriff, etc. The teacher should have "coached" and instructed the class on the types of questions needed for such an interview.

3. Upon return to the classroom, the teacher should assist the pupils in organizing the class to provide dramatization of one or more of the law enforcement areas of work. This may extend over

CONCEPT	METHOD
	several class periods. For instance, Mock Court. Utilize a hypothetical situation -- a pupil discipline problem. A. Have the various officials of the court selected by the pupils themselves. B. Have a proper jury (if needed) selected. C. The student who has been accused of a misdemeanor becomes the plaintiff. D. Select his defense attorney. E. Provide for a prosecuting attorney. F. Provide all the necessary witnesses. The purpose of this activity is to give the pupil the actual feel of a court situation. The instructor must develop this through writing and reading, in addition to the field trips and speakers.
Human relations	4. Another approach to this simulation is to have a pupil play the part of a policeman making an arrest for traffic violations. A. Have a pupil write the script for the part of the policeman and the violator. 5. Pupils should act-out the role of a probation officer and the parolee. A. Parolee has been cutting school, causing a

CONCEPT	METHOD
	classroom discipline problem whenever he is there. B. Probation officer has been called to help resolve the problem. Preparatory measures needed by the teacher: A. Have probation officer come to school and talk to class, explaining his job duties and education required. B. Allow probation officer to simulate a probable situation.
Human relations, judgment	6. In order to understand the methods of our democratic procedure, practicing the processes of democratic group thinking, and applying the principles of democracy to actual situations, the pupils will simulate a meeting being held to discuss the merits of a new project to be developed for an urban renewal improvement. Twenty-five to 30 students are to participate. It should be presided over by a moderator, and a secretary keeps records of the problem discussed. Both are selected by the students. Committees are chosen whose functions are: A. To submit lists of problems for discussion. B. To suggest books and periodicals for reference. C. To present an analysis and summary of all arguments pro and con before the vote is taken.

CONCEPT	METHOD
	The teacher should only be present to clarify obscure points, not to influence judgment. D. Other problems could be handled in the same manner. For example: (1) sewage disposal (2) labor relations (3) housing

Simulation for English

CONCEPT	METHOD
A. Introduction	STATEMENT: As TV viewers, all of us have watched the news. Perhaps some of us have considered news casting in making a career choice.
1. Purpose of study	STATEMENT: For the next two or three weeks, we will be doing these things:
a) plan a newscast b) develop a newscast c) produce a newscast	1. planning a newscast 2. developing a newscast 3. producing a newscast Through these activities we hope to learn whether this might be a wise career choice for us.
2. Alternate plan	NOTE: If video tape is not available, this unit can be developed as a radio newscast. In radio, greater emphasis would be placed on voice, inflection, timing, and other audio services.
3. General instructions	General instructions: 1. Active participants will work as a team. 2. Viewers will evaluate. 3. Participants and viewers will alternate to allow all students to serve in both capacities. 4. Newscast will be limited to 15 minutes. 5. Duration of unit will be two or three weeks.
B. Organization	In planning the newscast, we will need:
1. Camera operator	A camera operator -- use one who has been trained for this if possible.

CONCEPT	METHOD
	Camera will be set up to go before each presentation. Where video is not available, the camera operator can simulate operating or in radio this part can be omited.
2. News selectors	News selectors -- four persons will be needed to select news for: a) local news - editorial b) weather c) sports d) commercial
a) Local news - editorial	Local News - editorial This person will gather straight news items and editorials from newspapers, magazines, school paper or by personal interview. Items should be considered newsworthy and of interest to student.
b) Weather	Weather This person will gather current weather, news, and forecasts from newspapers, TV or radio newscasts. He must have a plan to update this material in time for the newscast.
c) Sports	Sports This person will gather sports news items from newspapers, school paper, interviews with coaches and sports figures. Preferably, he should be knowledgable in sports areas.

CONCEPT	METHOD
d) Commercial	Commercial This person will gather material for a commercial and provide the props for the background of the newscast. Commercial and background should be relevant and of interest to students. This person should have some art ability to design set.
e) General instructions	Where applicable, news selectors should become aware of good interview techniques by: 1. Making an appointment with interviews. 2. Pre-planning the interview. (questions to be asked) 3. Taking notes. 4. Writing the item from notes.
3. News Editors a) summarize items b) organize summaries	News Editors A news editor will be assigned for each news selector catagory: local, weather, sports, and commercial. It will be his job to summarize selected items. After summarization, summaries will be organized in order of presentation.
4. Script writers a) select final summarized material b) write material	Script Writers Script writers will: a) select summarized material b) write script from selected summaries Script writers should have the ability to write good dialogue.

CONCEPT	METHOD
5. Producer a) organize script and background b) rehearsal c) time newscast	Producer Producer will: a) organize the final scripts b) be responsible for the final props c) conduct a rehearsal d) time the rehearsal newscast This person should have the ability to organize from the particular to the general to present a unified whole.
A. Casting	Ideally, it would be desirable for students to volunteer for various jobs represented in the newscast. Students should be prompted to consider their skills and desires in making selections. The teacher should strive for total participation in selecting people for these jobs. The elements of "try-outs" could be employed.
B. Preparation	1. Select a place for the telecast or broadcast (if other than regular English room) 2. Any materials (live or simulated) which can be appropriated should be brought in. 3. News items can be selected from a newspaper or can be be reported. These may have to be condensed and surely edited. Written materials for commercials must be prepared. The work for this writing must be equitably distributed.

CONCEPT	METHOD
	4. If the simulation is a telecast, rather than a radiocast, props may be made by members of the class. 5. Illustration and/or art work involving the commercials must be assigned. 6. The "time" factor and coordinating should be a function of the production manager. 7. The engineer will coordinate the production as to the place, equipment, and area of the room.
C. Presentation	Consideration should be given as to whether the program will be confined to the classroom or shared with other elements of the student body. Having guests or sharing the experience outside the classroom would enhance the performance and probably improve its quality.
D. Evaluation	Any phase of performing from preparation (in writing or material production) can be subject to critical anlayzing; either verbally or written. A self-evaluation on the part of students would be desirable since so much of each contribution is done independently from the other. Asking students how their performance could be improved is a key to its success.
E. Other factors	1. Could this type of organization be applied to the continuous broadcasting (announcements) carried on in the school building.

CONCEPT	METHOD
	2. Could the local telecasting or broadcasting station accommodate any student in an actual work situation? 3. Could any kind of telecasting or broadcasting by the local school system accommodate student employees?

SIMULATION FOR AGRICULTURE

It is felt that the general levels of maturity and experience found in both the 9th and 10th grade can benefit by the activities suggested by this study guide.

CONCEPT	METHOD
I. To show an introduction to some jobs and their functions in farming, fishing, and forestry	A slide presentation showing areas of work concerned with farming, fishing, and forestry with a live commentary.
A. Farming 1. Dirt farming 2. Muck farming 3. Greenhouse 4. Golf course 5. Egg farming 6. Cattle farming	Seed Germination To show the concept of seed germination carried on by farmers. A simulation of this function will enable students to experience seed growths; a result of having planted seed and seeing the product of their labors. They can experience the visability of different types of seeds and see the varying lengths of germinating periods. Materials: petri dishes, sand or soil, seeds (general types), thermometer, seed-starter, paper towels, chlorox.
To show seed germination This simulation is given to show some of the job functions which may be common in "greenhouse keeping," nursery business, and farming in general.	Steps of simulation: 1. Dilute one teaspoon of chlorox in one pint of water. 2. Wash petri dishes and seed in solution and rinse in clear water. 3. Place wet paper towel in petri dish and place washed seeds on top of towel.

CONCEPT	METHOD
	4. Place in dark area at room temperature (70) 5. Check each day for degrees of germination.

CONCEPT	METHOD
	Large Scale Germination Steps: 1. Sterilize soil or sand (heat) 2. Place in seed starter (electric) 3. Plug seed starter into outlet and maintain a thermostatically controlled temperature (70) 4. Check periodically for seed growth
	Soil Sterilization To show in a very elementary way how to sterilize soil which can then be used in controlled plant propagation.
To show soil sterilization Controlled planting or propagating brings a demand for "sterilized" soil. Soil must be free from other active growth. Any kind of farming can utilize this means of soil preparation.	Materials: dirt, oven, pan, thermometer Steps: 1. Place dirt in pan 2. Place pan in oven (the dirt should be subjected to heat from 160 to 180 for at least 30 minutes -- low temperature 160 should be left in oven longer; as much as 12 hours -- high temperature 180 should be left in oven for shorter period.) Over 180 is not good because this destroys the beneficial non-living organic matter and reduces it to less usable chemical form. Under 160 will not permit the destruction of living, interfering life forms.

CONCEPT	METHOD
To show soil fertilization This process is essential in all phases of farming. Questions of economy, speed, and availability of certain equipment help to determine whether or not "dry" or "wet" fertilizing is used.	Soil Fertilization Show students how soil fertilization is an essential function to all types of farming. Materials: liquid fertilizer, powder fertilizer, jar, dirt, pots with dirt, plastic tube.

CONCEPT	METHOD
	An explanation is given with the liquid fertilization. Dirt is placed in jar and a liquid ferfilizer is sprinkled over the dirt The liquid can then be observed sifting down through the dirt. In the use of a powder fertilizer, the powder is distributed over the dirt and dew and rain dissolve the fertilizer and carry it down through the soil. An explanation of the ratios of nitrogen-phosphorous-potessium is given (5-10-5) (1-6-0). An explanation of foliage feeding is given as opposed to root feeding. A demonstration pot sprinkling is given.
	Watering-Lighting-Temperature
To show the functions of watering-lighting-temperature control	An introduction to tube feeding and spray feeding is offered to the students so that they can see how essential these processes are to greenhouse operations.
Nature usually provides the conditions under which plant growth takes place. However, these conditions can be symthesized either to extend growing seasons or to "accommodate" certain plants.	Materials: pots, dirt, shower head, tubes, (rubber), thermometer, fan
	Arrange tubing in the pots to show controlled moisture feeding is applied to roots. The spray is positioned above the foliage and falls much like natural rain.
B. Fishing	
Here we are attempting to show a limited number of job opportunities and functions related generally to the field of conservation.	Test water for the purpose of determining the conditions which best support fish and plant life.
	Materials: thermostat, airator, water tester (chemical), fish tank, plants.

CONCEPT	METHOD
1. Pet shops a) water control 1) temperature 2) acidity 3) plant-life 4) animal life Demonstrate by using a water tester and fish tank some of the controls a pet shop worker must understand in fish propagation and care.	1. Use the water tester to test tap water. 2. Use the water tester to test water from the fish tank. 3. Interpret these results. 4. Explain the use of the airator. 5. Explain the use of the thermostat in reference to the fish tank. 6. Explain the stage of growth of the fish in the tank, and tell students about these which are purchased by the owner-operator and those which are propagated.
2. Conservation a) professional wildlife guide	To take clientele on a successful fishing trip: Materials: map, whole fish, for napkins, frozen fille knife, paper plates, flour, pancake flour, eggs, soda crackers, frying pan, oil, catsup, and alec.
To show an extremely unique conservation career; that of professional fishing guide. This person is self-employed, loves the out of doors, knows most practical means of transportation, and has the ability to convey his self-reliance to individuals and groups.	1. Point out the natural favorable fishing areas on the lak map. 2. Give an indication of clothing worn and equipment carri 3. Prepare clients for weather conditions. 4. Suggest method of transport commensurate with desired destination. 5. Show clients the most successful ways to catch fis 6. Prepare a shore lunch with freshly caught fish.

CONCEPT	METHOD
NOTE: Frequently, odors and lack of bathing facilities are impediments to this type of job.	a) fillet fish b) coat with flour c) coat with pancake batter d) press in crumble soda crackers e) fry in one inch of cooking oil f) serve on paper plates
	7. Plan a future trip.
C. Forestry	
1. Grafting -- Grafting has both an ornamental and practical value. By this means the appearance of trees and shrubs are improved and better quality and variety of fruits are produced. a) bud grafts b) cleft grafts	The grafting simulation can be used to give students experience with trees and shrubs. For, those who get pleasure from growing trees and shrubs and enjoy light, physical work. Materials: sharp knife, rubber bands, polythene bags, tree coating compound, neighborhood trees and shrubs.
	Bud Grafting 1. Select healthy buds from parent stock during growing season. 2. Select healthy seedling stock (approximately 3/16 to 3/8 in diameter.) 3. Cut plump leaf bud and remove leaf except for 1/4 inch of stock. 4. Make a "T-shaped" cut in the stock near the ground level (use a sharp knife.) Lift the bark from the wood exposing the soft growing tissue called the "cambium."

CONCEPT	METHOD
	5. Cut bud beginning 1/4 inch below to 1/4 inch above takin with the wood-cut a thin layer of wood. This is the bud "shield." 6. Insert bud shield into "T-cut and enclose. 7. Wrap the "bud-cut" (not the bud itself) with plastic sheet and rubber band. 8. After three to five weeks remove wrapping and expect bud to be united to stalk. 9. In early spring, cut the stalk plant about 1 inch abov the bud. This will force the bud to sprout. All growth from the bud will be similar to bud parent plant.
NOTE: The lapse of much time in grafting may discourage the impatient individual.	Cleft Grafts 1. These grafts should be made while plants are dormant (winter). 2. For each stalk cut two "scions" from previous years growth. Scions should have three buds each and should be but 1 inch below the lowest bud. 3. Cut the stalk squarely at the point you wish to make the graft. Split this stalk and wedge it open. 4. Trim scions to a wedge shape beginning trim on each side of the lowest bud. Also trim less material from the bad side.

CONCEPT	METHOD
	5. Insert scions at a slight angle into the parent stalk with lowest buds to the outside. 6. Remove wedge and protect graft with grafting wax or plastic bag.
To show the process of leaf preservation by fabricating "plant process."	The making of "plant presses" which are needed for preserving collected leaves. Materials: pine wood or 1/4 inch plywood, glue and pop rivets, leather belts, rope rubber strips, newspapers, and cardboard. Procedure: 1. Make two 19 inch square frames use pine wood or 1/4 inch plywood cut into 40 strips 19" x 1" x 1/4" (bought ready-cut or made in school shop.) 2. Attach strips using glue and "pop" rivets in lattack-like pattern leaving 1 inch squares between each strip. 3. Insert newspapers between frames as dryers. 4. Hold newspapers and frames together with leather strips or etc. Collect tree leaves from local environment. At least two leaves of each species should be collected in case one is damaged during processing.

CONCEPT	METHOD
Twig collection is done for the same reasons as leaf collection is. To plan or promote land development for the purpose of recreation or conservation.	Press leaves immediately after collecting to preserve quality. Press leaves by inserting between newspapers. Leave excess newspaper in press to aid drying. Add newspapers and leave to press. Apply pressure with straps. Change newspaper daily (seven days) until leaves are dryed. Leaves may be mounted on white tag-board using glue which drys clear. Write name and/or species of each leaf. Twig collection (best time in winter) when leaves are not present. 1. Twigs are mounted on mounting board similar to leaf mounting board.
Cross-section collecting to show the internal characteristics of different wood to determine health of wood and eliminate plant disease. Growth rates can thus be determined.	Collect and preserve cross section of small diameter wood. Materials: small tree limb, saw, wax Procedure: Prepare small diameter (1") cross-sections by sawing limbs approximately 1/4" in thickness. Dip sections in hot wax to preserve color. Mount thin sections for microscopic study.
Germination rates to be determined by seed growth.	Materials: tree seeds, soil, seed starter, fertilizer, plant pots, and water. Procedure: 1. Tree seeds may be collected from local woods.

CONCEPT	METHOD
	2. Plant seeds in soil which is heated and maintained at 70° F. 3. Heating of soil may be done by electric seed starter. 4. Measure time required for seed germination of different tree seeds. 5. Transplant seedlings to pots and measure growth rate. 6. Water and fertilize as needed. 7. Trees may then be planted naturally to improve esthetic value of an area.
Photographing to explore the characteristics of different woods.	The identifying of trees from color slides. Materials: camera, film Procedure: 1. Have students photograph local trees showing full tree, twig, fruit, bark, and leaves. 2. Students are then asked to identify trees from slides. 3. Healthy and diseased trees may be differentiated.
To show the protection of trees from fires.	Demonstrate fire fighting using natural materials. Materials: shovel, soil, humus, wet leaves, fire blankets, and hand garden sprayer.

CONCEPT	METHOD
	Procedure: 1. Take students out of doors and start some kind of fire. 2. Put out the fire by throwing one of the said materials on it. NOTE: Invite local firemen to participate in this process.
To show conservation area planning.	Plans for submission to a budgetary board can be simple or elaborate. Materials: equipment for drawing, displaying, and painting. Prepare for display a map or lay-out to show which conservation area would have trees and which would not. Show which kinds of trees would be planted in certain areas -- which would lend either beauty or utility to a given area.

Simulation for Health Occupations

1. The student will become more familiar with the various areas in health careers as well as being knowledgable of some of the terminology used.
2. Students will be made aware of whether the discovered job traits are compatible to his selected health field.
3. Student will experience some of the work tasks involved in the health field.
4. Students will determine through questionnairs whether he is compatible with chosen field or not. (Insight)

HEALTH JOBS NEEDS ENDLESS, SALARIES UP

Our hospitals are due to become the nation's biggest single new source of jobs by 1975, less than four years from now, for a great variety of health workers as well as physicians and nurses. This prediction comes from no less an authority than Dr. Edwin Crosby, president of the American Hospital Association.

Are you, the high school student aware of the range of opportunities open to you in the health professions and occupations? Do you know how greatly upgraded have been pay scales in this area?

It well may be that you would be vitally interested in a career in the health field. Here is a rundown on some:

-- Home health aide: trained, usually at a high school, vocational school or adult education center to perform a wide variety of services in the homes of sick or disabled patients at a fraction of the cost of staying in a hospital. More than 200,000 such workers are now needed, estimates the National Council of Homemaker's Services in New York -- but only 15,000 workers are available. Typical pay of home health aides is $125-$150 a week.

-- Assistant in drug addiction centers: in demand to administer methadone in drug -- maintenance clinics, to "talk down" drug abusers suffering from bad trips, to analyze patient specimens, etc.

-- Orthoptist: to help people, especially children, to correct eye defects and defective visual habits under the supervision of an ophtalmologist (an M.D. specializing in visual disorders.)

-- Assistant operating operations and arrange for room secretary: to schedule appropriate staff to be on hand.

-- Translator: to work in hospitals in Spanish-speaking and French-Canadian communities as a bridge between patient and physicians and/or hospital administration.

-- Medical emergency technician: to ride in ambulances and perform therapeutic and other functions in hospital emergency rooms.

-- Mental health nurse practitioner: to assist in nursing care in mental institutions and perform nonprofessional tasks.

-- Operating room technician (surgical technician): to assist in the many aspects of care of patient, pre and post-operative, in the operating or delivery room.

-- Senior nursing attendant: to assist in hospital nursing care, taking blood pressure and specimens, to operate traction, oxygen and fluid drainage, equipment.

-- Clinical administrative assistant: to counsel the underprivileged on health care in neighborhood clinics.

-- Physician's assistant: to perform certain diagnostic and therapeutic procedures under physician's supervision -- for instance, weigh and take patient histories, take blood pressure; electro-cardiograms and x-rays, and process lab specimens.

-- Pharmacist's aide: to assist the pharmacist in record-keeping, labeling, compounding, and packaging of drugs.

-- Patient service representative: to assist patients with health, insurance, Medicare, Medicaid, other financial matters and to handle complaints about service received.

-- Cardiopulmonary technician: to assist in the treatment of patients with heart-lung ailments: set up and operate oxygen equipment, work in an operating room and/or recovery room, provide certain emergency services associated with heart-lung disease.

-- Orthopedic equipment attendant: to maintain and service orthopedic devises used to repair broken bones, etc.

-- Physical therapist: to evaluate physical disabilities and use physical and breathing exercises as well as other techniques to help restore muscle coordination and strength.

-- Aides for mental retardates: specialists to work in facilities for mental retardates -- ranging from music therapists to speech clinicians.

The needs are overwhelming. The opportunities are almost endless. The variety of work in the entire area of health is growing steadily.

Taken from a series of articles by Sylvia Porter published in the Plain Dealer on August 19, 1971.

REGISTERED PROFESSIONAL NURSES

DOT .075.118 through 378

Nursing care plays a major role in the treatment of persons who are ill. Registered professional nurses administer medications and treatments prescribed by physicians, observe, evaluate and record symptoms, reactions, and progress of patients, assist in education and rehabilitation of patients and improve their physical and emotional environment, instruct auxiliary personnel or students, and perform other duties concerned with the care of the sick and injured, prevention of illness and promotion of good health.

Three types of education programs: diploma, baccalaureate degree of year and two year in college and associate degree offer the basic education required for a career in professional nursing. Diploma programs are conducted by hospitals and independent schools and usually require three years of training, bachelor's degree programs usually require four years of study in college or university. All professional nursing programs include classroom instruction and supervised nursing practices.

Additional Information:

National League for Nursing, Committee on Careers
10 Columbus Circle
New York, NY 10019

American Nurses Association
10 Columbus Circle
New York, NY 10019

Department of Medicine and Surgery
Veterans Administration
Washington, D. C. 20420

NURSING SERVICES

CONCEPTS	METHOD
I. Nursing Team	
1. As a member of the nursing team, the nursing assistant works under the supervision of the team leader and cooperatively with other team members.	Pass out listing of various types of specialized nurses.
a. Keep in mind that the nurse recognizes the nursing assistant as a valuable worker and member of the team.	Pass out chart which has the nursing team in a diagram form.
b. Understand exactly what your work assignment is.	" __ __ ______ with loyalty will I endeavor to aid the physician in his work, and devote myself to the welfare of those committed to my care." from Florence Nightingale Pledge
c. Organize your individual work. First, write down your assignment, think out what you have to do and how much time you have to do it.	
2. Report to your team leader when she makes rounds.	
a. Patients request or complaint which calls for nurse's decision.	Remembers that the nurse is interested in you and wants to help you improve in your work.
b. Observed some change in conditio	The habit of being courteous will remove or adjust every barrier to working in harmony with others.

CONCEPT	METHOD
3. Working as a member of the nursing team calls for persons who can get along with others working as a nurse is important work. It calls for persons that want to grow with the job.	If you keep forever trying to improve your work, success with pride and job satisfaction is certain to follow.

II. EFFECTIVE HANDWASHING TECHNIQUES

Key points: When caring for sick people, the hands are almost constantly touching the patient, or articles and equipment used in the care of patients. As a result, germs (disease producing organisms) from the patient, his dressings or articles are transferred to your hands.

The hands may carry those disease producing organisms and transport them to other persons and places, including your own face and mouth.

All patients, regardless of type of illness or injury, are possible sources of infection.

Here are the times when it is most important to wash the hands:

Before handling patients food.
Before eating.
Before caring for a patient - after caring for a patient.
After handling patients articles.
After using handkerchief tissue
After going to toilet.

CONCEPT	METHOD
Correct handwashing techniques:	
Follow this method →	1. Turn water on: if hand control faucets are used, leave water running throughout the entire procedure.
When a detergent or soap containing certain antiseptics is required, only a very small amout should be used. More	

CONCEPT	METHOD
water than detergent is added to make increased lather.	2. Wet your hands and wrists.
	3. Apply detergent or soap from dispenser to hands. Add water as needed to keep lather from becoming too dry.
Always try to avoid touching open wounds or soiled dressings or pus from wounds. If unavoidable, repeat the washing as explained in Number 6.	4. Work lather over hands and wrists: a. rub one lathered hand against the other b. work lather between fingers c. rub tips of fingers over palm d. clean nails with a stick or file when necessary e. if necessary to add more detergent for more lather, rinse the hands under running water f. keep hands away from sides of sink or bowl
All paper, dressings, and other materials must be disposed of in the incinerator or in disposal can.	5. Rinse hands thoroughly under running water. a. Use foot control for steady streaming water. b. In rinsing, hold hands, lower than arms and elbows so that water rinses from your wrists toward finger tips.
	6. Repeat the washing if hands have been in contact with patient's saliva, drainage from wound or blood.

CONCEPT	METHOD
	7. Vigorously wash for four to five minutes.
	8. Dry hands with paper towel. Turn off water. If hand controlled faucets are used, place paper towel over the faucet and turn off water

III. Medicines by Mouth

Key points:

1. Always have a written order - signed by the doctor.
2. Know standard abbreviation and symbols pertaining to dosages.
3. Know minimum and maximum doses and action of every drug you give.
4. Read label three times.
   a) before removing medicine from cabinet
   b) before pouring or preparing it
   c) before returning it to cabinet
5. Do not return excess medicine to the stock bottle or containers, discard it in the sink. (Medicine not taken by patient)
6. Do not pour a drug from one bottle to another.
7. Do not leave the medicine cabinet unlocked.
8. Prepare the medicine you give, and give the medicine you prepare.
9. Record the name and amount of medications and time it was given.
10. Give the right dose of the right medicine to the right patient at the right time and in the right way.

Equipment needed:

Medicine tray or cart
Medicine cards - name of patient, room, and bed number
Medicine glasses
Medicine droppers
Medicine glass and calibrated nursing devices
Tongue depressors
Paper wiper
Small pitcher of cold water
Drinking straws

CONCEPT	METHOD
When preparing medicines do not allow interruptions.	1. Wash hands 2. Unlock medicine cabinet 3. Take one medicine card at a time, read card, locate medicine, compare name of drug with name on card.
Remember the 3 BEFORES for reading label: 1. Before removing from shelf 2. Before pouring 3. Before returning to shelf	4. Pick up medicine glass: read label on medicine, check against card. 5. Pour or prepare prescribed dosage of medicine in glass.
	LIQUIDS A. Shake bottle. B. Remove cap - place upside down C. Hold medicine glass in left hand place thumb nail at mark D. Hold bottle in right hand. E. Wipe rim of bottle with paper wiper F. Dilute medicine with 1/2 ounce of water unless it is a medicine that is given undiluted.
	TABLETS, PILLS, CAPSULES A. Gently shake prescribed number into bottle cover. B. If in box, remove prescribed number with spoon. C. Place in paper cup
How to prepare and work with powder medicines. Sometimes dosages of powders are prepared in pharmacy in papers. Each folded paper container holds the required dosage and is called a "powder." Do not confuse drops with minims. They are not the same in amount.	POWDER A. Measure in calibrated medicine glass: hold glass at eye level. B. If spoon is used, take more than required amount; draw edge of tongue depressor "across spoon." C. Add required amount of water to powder in glass.

CONCEPT	METHOD
	DROPS A. Use a medicine dropper. B. Hold dropper at 45° angle: count the prescribed number of drops as they fall into medicine glass. C. Discard excess medicine of any in dropper into sink. D. When prescribed dosage is in medicine glass, read label on medicine, compare with card, and return to shelf. E. Be sure to provide straws for patients who receive irritating drugs or medicines that may stain the teeth. F. Make rounds to patients in a planned, orderly way. G. Do not ask the patient "Are you Joe Brown?" ask him, "What is your name?" H. Never leave medicines on bedside table to be taken later.
What do you do at the patient's bedside before giving the medicine.	STOP: at each patients bedside and-- a) identify patient before giving medicine: look at identification wrist band, call him by name, compare name on medicine card. b) hand medicine glass to patient. c) pour drinking water and hand to patient. d) stay at bedside until patient takes medicine. e) chart medicines given on medicine cards

IV. Take and record temperature, pulse, and respiration. The patient's temperature, pulse, and respiration are very important to the doctor in determining the patient's condition. Therefore, great care should be used to take temperature accurately and to count pulse and respiration exactly. These should be recorded precisely.

CONCEPT	METHOD
THERMOMETER A thermometer is made of a glass tube and bulb in which mercury is placed. When heat is applied the mercury will rise within the tube indicating a change in temperature.	Teacher demonstration of following procedure: 1. Pick up thermometer at the end opposite the bulb. 2. Turn ridge edge toward you: look for the column of mercury between the lines.
Demonstrate to student how to read thermometer.	3. Read the scale: long line = degree short line = nearest 2/10th of a degre

HOW TO TAKE TEMPERATURES BY MOUTH

Equipment needed: 1. Thermometer mouth 2. Temperature book 3. Pencil 4. Tissue wipes, paper bag, container for used thermometers.	
Procedure to take temperature	Procedure: 1. Wash hands 2. Shake down thermometer: a. hold with thumb and first two index fingers b. relax wrist - with quick jerky motions of wrist shake mercury down to lowest mark 3. Place the bulb end in patient's mouth - under tongue. Keep lips closed.
Normal temperature is usually 98.6°	4. Leave the thermometer in place for three minutes. 5. Wipe from top toward the bulb with dry tissue. Discard tissue in "waste can."

CONCEPT	METHOD
Do not tell patients if they have a low or high temperature	6. Read thermometer. 7. Write down temperature on chart. 8. Place thermometer in container of steralized solution.
	Form teams of two students each: Allow students to take temperature of team member; one who is the simulated patient and one who is the simulated nurse and reverse situation

HOW TO COUNT THE PULSE

With each beat of the heart blood is forced into the arteries, causing them to expand. This swelling of the artery can be felt with the fingers and is called the pulse. The pulse may be felt at several points where a large artery lies near the surface of the body. The pulse is usually counted at the wrist just below the thumb. The number of beats each minute is called the pulse rate.

	Teacher demonstrates the following procedure:
How to prepare the patients body for counting the pulse.	1. Place patient's arm in comfortable relaxed position. 2. Place tips of two or three fingers on the artery on the inside of the wrist just below the thumb. 3. Press fingers firmly to feel pulse.
Note strange or feeble beat. If beat is irregular check for a full minute. Normal pulse rate for the average man is about 70; average woman is about 75. The rate for children is higher and varies with age.	4. When pulse is felt; look at second hand of your watch and count the beats for 1/2 minute and multiply the number by 2. Pulse per 1/2 minute x 2 - r.p.m. rate per minute. 5. Record the pulse rate in temperature book.

Team of students will take the pulse of each team member.

HOW TO COUNT RESPIRATION

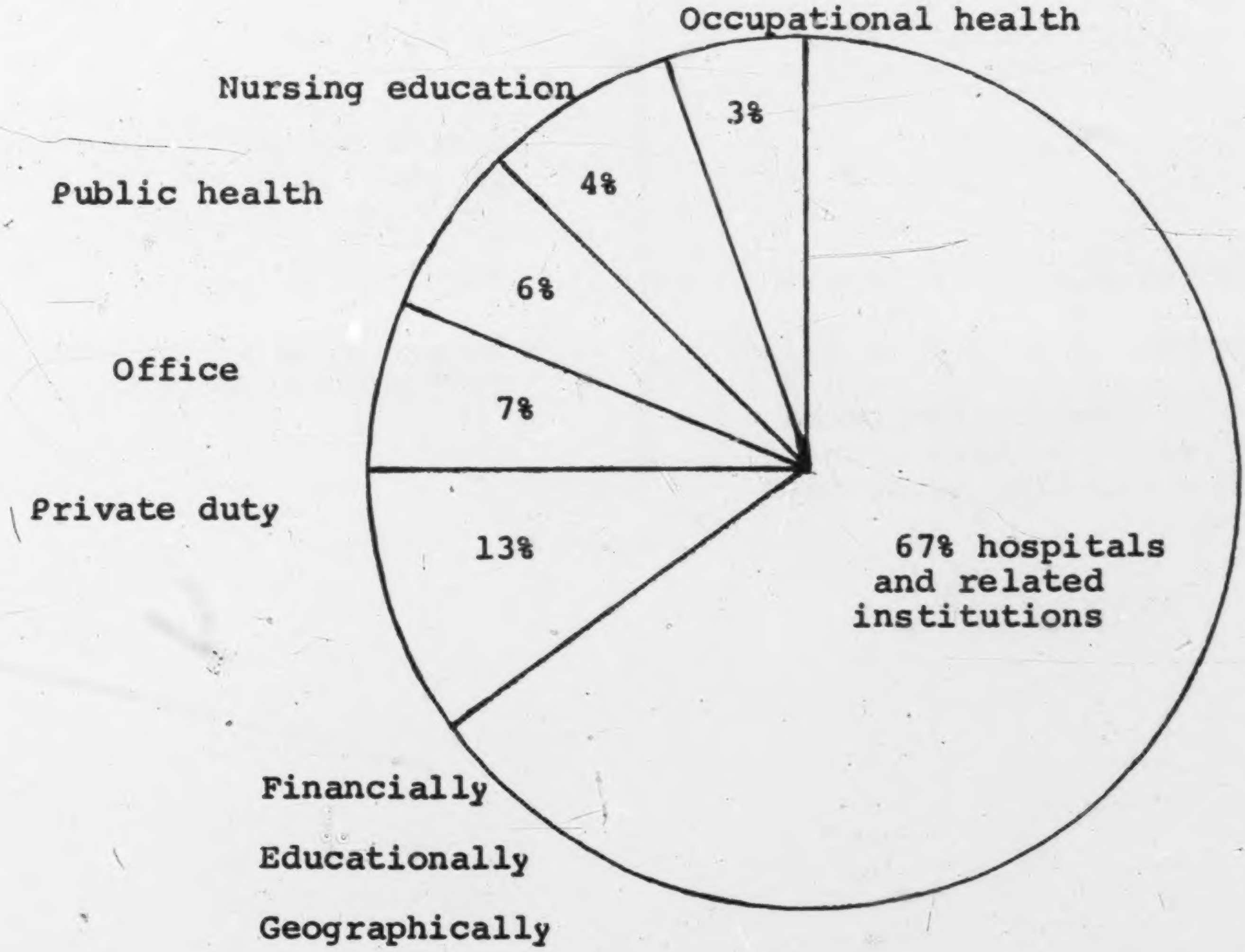
A respiration is one breath taken in and breathed out. This causes the chest and sometimes the abdomen to rise and fall.

CONCEPT	METHOD
Respiration is counted without the patient knowing it.	1. Leave your hand on wrist after pulse. 2. Count respirations for 1/2 minute by the second hand on the watch and multiply the number by two.
Rate per minute is less than 14 or more than 28 should be reported to doctor on call.	3. Respiration perminute. 4. Record rate per minute in temperature book.
Note if respiration seems labored or painful or noisy with a wheezing or snoring sound.	

PROFESSIONAL NURSE

TRANS #1

Opportunities within your immediate scope



Greatest Interest — Ultimate Goals — Immediate Opportunities

PROFESSIONAL NURSE

TRANSP #2

Administration of Drugs

A. Single dose involve mathematical computation
B. Prepackaged single doses conserve nursing time
C. Compare information on medication card with information found on:
    1) the door
    2) bedside
    3) identification bracelet
    4) verbal identification of patient

SUGGESTED TIMES FOR DRUG THERAPY

Abbreviations	Interpretation	Time of administration
a. c.	before meals	7 - 11 - 5
b. i. d.	twice a day	9 - 7
p. c.	after meals	9 - 1 - 7
p. r. n.	whenever necessary	dose may be repeated according to stated time interval
q. d.	every day	9 a.m.
q. h.	every hour	9- 8- 9- 10, etc.
q. 2h.	every 2 hours	7 - 9 - 11, etc.
q. 3h.	every 3 hours	6 - 9 - 12 - 3, etc.
q. 4h.	every 4 hours	8 - 12 - 4 - 8
q. 6h.	every 6 hours	6 - 12 - 6 - 12
q. i. d.	four times a day	9 - 1 - 4 - 7
si op sit	if necessary	
stat.	immediately	

*** These are the suggested hours for drug administration if meals are served at 7:30 and 5:30.**

Medical X-Ray Technicians

CONCEPT	METHOD
Relationship to medical field	Statement to class: Medical x-rays play an important role in the diagnostic and therapeutic field of medicine. Question and Answer: What do you think the x-ray technicians job is? Answer: Most technicians perform diagnostic work, using x-ray equipment to take pictures of internal parts of the body which the doctor wishes to examine.
Employment	Statement to class? More than one-fourth of the x-ray technicians work in hospitals. Question and Answer: In what laboratories or offices do most x-ray technicians work? Answer: Medical laboratories, physicians, and dentist offices, clinics, Federal and State health agencies. Statement to students: About 3/4 of the x-ray technicians are women, even though the number of men in this field has increased.
Training, qualifications, and advancement.	Question: Where are most of the x-ray technicians trained? Answer: Most training programs in x -ray technology are conducted by hospitals or by medical schools.

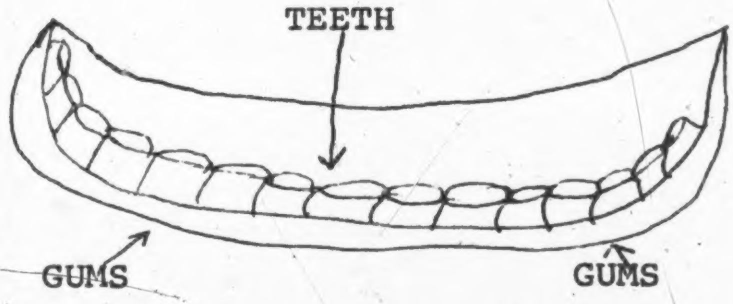
CONCEPT	METHOD
	Statement to class: A program in x-ray technology usually takes 24 months to complete. Few schools offer 3 or 4 year programs and 20 schools award a Bachelor's Degree.
	Vocational and technical schools also offer training in this area.
	Question: What courses are usually included in x-ray technician?
	Answer: Courses in anatomy, physiology, nursing procedures, physics, radiation protection, dark room chemistry, principal of radiographic exposure, x-ray therapy, medical ethics, and the operation of maintenance equipment.
	Statement to class: All of the approved schools require that applicants be high school graduates and a few require one or two years of college.
Earning and Working Condition	Statement to class: The average salaries of medical x-ray technicians range from 75.50 a week to $95.00 a week, depending upon location and experience as well as amount of advance training.
Simulations	Note to teachers: Suggested simulations for students: 1. Body relations 2. List parts of body usually x-rayed

CONCEPT	METHOD
Pass out list of bones of the body and have students find the definition in a dictionary and write.	
Simulations	Body relations -- Have students draw and label various parts of the body to be x-rayed. Also list under the part of the body conditions that may require x-ray. Also have students touch these various parts of the body as a means of identification.
X-ray observations	Student discussion of what makes a negative good or bad. Examples of poor x-rays may be obtained from local hospitals or dentists office. Place x-rays on overhead for class viewing.
Overhead presentation	Show example of good x-ray and point out the definitions of the bone. Point out fracture as being a dark line.
Poor x-rays	Compare bad x-rays. 1. Overexposed 2. Underexposed 3. Out of focus caused by movement
Similarity of x-ray to a camera	Place regular negatives of an ordinary camera on overhead showing over and under exposed shots and blurry negatives caused by movement.

CONCEPT	METHOD
	Draw conclusion with class that the basic principle of x-ray is similar to a camera.
Handling patients with injuries other methods of x-ray technical terms.	Question: Since x-ray is similar to camera negatives, then why should a person have advance training to be an x-ray technician? Answer: Because doctors use technical terms and x-ray technicians need to know these terms. Note to teacher: Pass out list with names of bones on it and have student define each.
Dental Hygienists	
Dental Hygienists	Statement to class: Other members of the health team are the Dental Hygienists. What do you think they do? (Write on board correct answers from students.)
Create interest and find out what students know about the field of the Dental Hygienists.	Answer: 1. Clean and polish teeth. 2. Massage gums. 3. Chart conditions of decay and disease for diagnosis by the doctor. 4. Take and develop x-rays. 5. Mix filling compound. 6. Prepare solutions, administer prescribed medicines, sterlize instruments. 7. Act as assistant to dentist.

CONCEPT	METHOD
Human Relations	NOTE: Mention to students that there are other functions performed by the Dental Hygienists. These jobs require good human relations because you will be working in school systems examining children's teeth. Reporting findings to parents. Those with advance training may teach in schools of Dental Hygiene.
Make students aware that at least two years of education is required for Dental Hygienist; and four years for advanced study in some schools.	Statement and Question: We now know what jobs the Dental Hygienist perform. How much education do you think is needed? Answers: At least two years of college for those who are interested in working in a dentist office. Four years for those working in public schools and research. Statement to class: What are some of the basic courses required? Answer: (write on board) 1. basic science 2. dental science 3. liberal arts NOTE: Mention that these schools also offer laboratory work, clinical experiences, and classroom instruction in such subjects as anatomy, chemistry, histology, pathology, pharmocalogy, and English. Because of the importance of this job, state departments of health determine who is allowed to practice as a Dental Hygienist in their state.

CONCEPT	METHOD
	Statement and Question: Make students aware that a state examination must be passed to practice Dental Hygiene in the state in which they practice. How does a person qualify to become a Dental Hygienist?
	Answer: He must take a state examination upon completion of course. Once he passes the test, he becomes a registered Dental Hygienist. (RHD)
Make students aware of earnings and working conditions.	NOTE: Say to students that earnings are affected by the type of employment, education, and experience as well as the part of country you are located in. You may make as much as $6,000 and as low as $4,500 for beginning salary.
	Question: What are the two ways technicians are paid?
	Answer: By salary and commission.
	NOTE: Explain that some hygienists work out of dentists office and are paid on commission according to the amount of work done rather than a regular salary.
Activities--try to relate or give students some of the experiences that are involved in the hygienist's job.	NOTE: Say to students "Let's look at some of the jobs that are performed by the hygienists."
	Today, let's begin making a denture from clay. By the end of the week period, the teeth should be cleaned and polished.

CONCEPT	METHOD
Simulation	NOTE: Material needed 1. Modeling clay or modeling mixture. 2. Sand paper (for polishing and smoothing teeth) 3. Denture model (could be obtained from school nurse or dentist) 4. Popsicle sticks (for shaping and outlining teeth) 
Massage gums	Have students wash hands carefully and check each other's teeth with tongue depressor as well as massage gums in area they choose.
Teeth brushing	Have students give demonstration to elementary school children on brushing teeth.

LICENSED PRACTICAL NURSE

CONCEPT	METHOD
I. Introduction of Unit A. Purpose of Study 1. Purpose of study is to help students make a decision as to what health occupation they would like to enter.	Pass out hand-out sheet listing health occupations. (Instruct students they are to save these sheets.) Statement to class: There are many careers in health occupations. After this study it is hoped you will be able to choose: (write on blackboard) 1. Which career to follow 2. How to prepare for that career 3. Whether you are interested in a medical career
II. Nature of Work A. Purpose of this unit is to acquaint the student with the various nursing procedures used by the Licensed Practical Nurse. 1. Admission of Patient (a) human relations establishing rapport with patient. (b) Note to teacher Define Nursing have student be aware of what the term of Nursing means - use dictionary. Have student define Nursing. Use dictionary.	Definition of a Licensed Practical Nurse: Licensed Practical Nurses assist in caring for medical and surgical patients, convalescents, handicapped people or mentally ill. Under the direction of physicians and professional nurses, they provide nursing care which requires technical knowledge but not the professional training of a R.N. Statement and Question: L.P.N.'S assist in bathing patients. How would you assist each type of ambulatory or non-ambulatory patient in taking a tub bath or shower? Ambulatory patient: 1. Show patient the facility and offer assistance.

CONCEPT	METHOD
2. Care of Patient (a) Baths 1. tub or shower 2. bed 3. partial	Non-ambulatory patient: 1. Prepare patient to take bath* *See section on Orderly and aides procedures for bathing patient.
(b) Physical 1. Back care 2. Care of nails 3. Feeding patients 4. Hot and cold applications	Note to teacher: The following procedures may be incorporated to help students become aware of procedures used in nursing: 1. Back massage 2. Care of nails 3. Feeding patient 4. Hot and cold applications
3. Cardinal Symptoms Define	DEFINITIONS OF CARDINAL SYMPTOMS The cardinal symptoms are physical symptoms that relate to body temperature, respiration, pulse, and blood pressure. These symptoms are critical to sustaining life.
Acquaint students on use of equipment for diagnostic evaluation and chart work.	Question and Answer: Why should records be kept of patient's cardinal symptoms?
(a) Charts Have students prepare charts for use in patient record each member of class on the chart. Each student should experience examination of each cardinal symptom and record results on charts. Rotate class so each student will have a complete chart of class.	Answer: Results are used as a record of patient's health condition and serve as a guide to the doctor in his diagnostic work up. Note to teacher: Have students make up charts including columns for recording blood pressure, temperature, pulse, and respiration. (Sample chart in appendix) Note to teacher: Blood pressure taking: Recommend school nurse or doctor to demonstrate this procedure.

CONCEPT	METHOD
(1) Blood Pressure Have student become aware of use of stethoscope and sphymomanometer	
(2) Temperature	
(a) Oral Student to experience the use of a thermometer on a patient and to record the results.	Note to teacher: Explain method of using the thermometer orally, and to have student transfer or record reading on a patient chart.
(b) Other methods of taking temperature: 1. Groin Temp. 2. Rectal Temp.	
Note to teacher: For infants, groin temperature is used. Sometimes taking rectal temp. is generally used for very ill patients and infants.	Note to teacher: Student should know about these other areas of taking temperature but not necessary to have demonstrations. POINT OUT THAT RECTAL TEMPERATURES ARE USED FOR VERY ILL PATIENTS AND WHEN A MORE ACCURATE READING IS DESIRED. ALSO USED ON INFANTS.
Note to teacher: Reference book to procedures: "Simplified Nursing" (Hoffman, Lipkin, and Thompson)	Procedure description in "Simplified Nursing," Hoffman pp. 262 and 263.
"Practical Nursing" (Rapier, Koch, Moran, Getronsn, and Phelps - 4th edition. C. V. Mosby Company St. Louis 1970)	Suggested Procedure - page 265 - "Simplified Nursing" - Hoffman.
(3) The Pulse Students should be able to take the pulse rate of a patient.	Have students take pulse rate of each student in class and record on chart. (see 3a) Procedure: count pulse rate for 15 seconds and multiply by 4. This is the rate of pulse.

CONCEPT	METHOD
(4) Respiration Respiration is the process of bringing oxygen into the lungs and expelling carbon dioxide.	What rate of respiration would be considered as normal rate? Have students watch and record respiration rate and place results on chalkboard then figure the average rate of respiration of the class. Have students follow same procedure for charting respiration as in 3a.
(5) Aseptic Procedures	
(a) Protective Nursing Methods Student should become aware of preventative methods.	Note to teacher: Suggested procedure page--278, "Simplified Nursing" (Hoffman)
1. Washing hands 2. Putting on and removing gown 3. Removing the gown	Suggested Procedure - p. 280 "Simplified Nursing" Hoffman Suggested Procedure p. 280 "Simplified Nursing" Hoffman
(b) Protection	
Student should be made aware of the methods of protection of themselves against infections.	Suggested procedures - p. 275 "Simplified Nursing" - Hoffman
Use of rubber gloves Use of plastic gloves	
(6) Sterilization and Disinfection	Note to teacher: This unit can be simulated with aid of materials from home.
Student should be made aware of various antiseptics and disinfectants.	Have student make list of disinfectants and antiseptics used at home and bring to class samples from home.
Student should be made aware of difference between antiseptics and disinfectants.	Have students give demonstration on how to disinfect bed; room furniture.

CONCEPT	METHOD
	Questions -- What is iodine? What is alchohol? What is lysol? Have student identify various disinfectants and antiseptics by smell, color, etc.

PATIENT MEDICAL CHART

Cardinal Symptoms

Date ________________ 19__

PATIENT	BLOOD PRESSURE		TEMPERATURE	PULSE	RESPIRATION
Name	Systolic	Diastolic	F°	Rate	Rate

CONCEPT	METHOD
6. First Aid Student should be made aware that in emergencies the principles of first aid should be practiced.	Note to teacher: The American Red Cross Association and other health organizations will send representatives to demonstrate first aid procedures.
Areas covered in first aid: (a) principles of first aid care (b) asphyxiation (c) artificial respiration (d) mouth-to-mouth resuscitation (e) hemorrhage 1. control by pressure (f) shock -- give procedure (g) fainting (h) bandages	For class simulation have demonstration performed and use student participation. See chapter 43 - page 509, "Simplified Nursing" - Hoffman, Lipkin, Thompson. Students will simulate care of patients for shock, fainting and the art of using bandages. Simulation of care of wounds, burns, and preventative methods of infections.
Students should be aware of the various pressure points of the body to stop excessive bleeding.	Class simulations: Use students for simulation of artificial respiration. Mouth-to-mouth resuscitation - The American Red Cross will furnish a model and demonstrate this procedure. Have students operate the model and have experience in mouth-to-mouth experience. Students should know how to apply tourniquet to stop bleeding. See chapter 43 - page 509, "Simplified Nursing" - Hoffman Pressure dressings.

CONCEPT	METHOD
7. Shock Define Shock	Defined: Shock is the general depression of all functions of the body and is based primarily upon a failure of functions of the peripheral vascular system, in other words, failure of function of the blood vessels throughout the body and not primarily of the heart itself.
(a) Symptoms Students should be able to recognize symptoms of shock. Symptoms of dizziness, nausea, pale skin, clamming from perspiration.	Treatment for shock: patient should be kept warm and made as comfortable as possible. Student should practice methods of helping patients get out of beds, chairs, and walking.
8. Fainting	Note: See chapter 43, page 509 - "Simplified Nursing" - Hoffman.
Student should be aware of what fainting is and how to react to treating a patient.	Fainting - Students should practice procedures of treatment for patients who have fainted.
9. Bandaging Bandages are very useful in fact, necessary in first aid work.	The procedure is to elevate legs and allow blood to flow to head.
Student should be aware of some methods of bandaging.	Function of bandages: 1. asepsis 2. pressure to prevent bleeding 3. fixation of dressing 4. to increase the temperature of a part 5. to anchor splints
	Have students make a triangular bandage to a finger.
	Note: See chapter 43, page 509 - "Simplified Nursing" - Hoffman.

CONCEPT	METHOD
Dressings Student should be aware that dressings must be sterile.	Student should use band-aids, cotton, gauze, adhesive tape.
Functions of dressings are as follows: 1. Control of hemorrhage 2. Protection from bacteria 3. Absorption of fluids 4. Increase vascularity 5. Aid in application of medical agents	* * * Note to teacher - recommended book "First Aid Diagnosis and Management," Cole and Puestow * * *
Treatment of wounds Student should be aware of the care that goes into treatment of wounds. 1. Irrigation 2. Cleansing	Suggested simulation: dressing lacerated wound. Use type of media to simulate wound. Should be of such material as lends itself to irrigation and cleansing with soap and water.

Films for Medical Occupations

8 mm film

"Patients are People" series 610.730. 698

6 films - 6 to 9 minutes each, color, fair March - IV - V - STD

8 mm sound cartridge Fairchild projector

mmp - Modern Marketing Programs
Division of Modern Talking Picture Service
1212 Avenue of the Americos
New York, NY 10036

Designed to train nursing aides
Titles - "To Care Enough"
"Bathing the Patient"
"Patient Feeding and Mouth Care"
"The Bed and the Bedside Unit"
"Meeting the Patients Excutory Needs"
" T. P. R."

Dental Laboratory Technicians

CONCEPT	METHOD
To create interest in the Dental Laboratory Technicians	NOTE: Begin discussion by telling the students that Dental Laboratory Technicians are also part of the health tema. "Today let's take a look at the various jobs they perform." **Question:** What do you think would be some of the most skilled jobs a Laboratory Technician would perform? **Answer:** Making artificial teeth, crown, bridges and other orthodontal appliances.
Human relations	NOTE: Make students aware of the fact that Dental Technicians do not deal directly with patients but receive perscriptions from the dentist.
Training and Education	**Statement to class:** To be a Laboratory Technician no formal education prevails for entry into this occupation, but graduation from high school is an asset. The most common method of becoming a Dental Laboratory Technician is to secure a trainee position and learn the craft on the job.
Time factor involved in training	**Statement to class:** On-the-job training usually lasts three or four years, depending on such factors as the trainee's previous experience and his ability to master the techniques and art to be learned.

CONCEPT	METHOD
Educational Training	During the first year, formal classroom instruction is given in dental law, ethics, chemistry, ceramics, metallurgey, and other related subjects. The second year the student must complete twelve months of supervised proctical experience in the school or dental laboratory. He may receive some pay for this. After completion of two years training program, three years of practical experience in a dental office or a laboratory are required before he is eligible to take the exam for certification. **Question:** Why do you think it's so important to become certified? **Answer:** Because certification may become important for obtaining employment as a dental laboratory technician because many employees regard the certificate as evidence of competence.
Places of employment	**Statement to class:** Where can you go for employment in this field? **Answer:** Most technicians work in commercial work or either as employees or as owners of the business. A few large labs may employ many technicians.

CONCEPT	METHOD
Salary and employment Give student some idea of the amount of money in this field.	Statement to class: In 1964, commerical laboratory technicians earned between fifty and sixty dollars a week. Experienced technicians in commercial labs earn between eighty and one hundred dollars a week which depends upon skills. Foremen and managers in large labs may earn $200 or more per week. Generally speaking, self-employed earn more than those of salaried workers.
NOTE: Both Laboratory Technicians and Dental Hygienists should be taught in sequence.	NOTE: Bring in the relationship between the Dental Hygienist and Laboratory Technicians work. Continue or begin working on denture and construct teeth made from soap.
Simulation Give student some idea of how it may feel to experience some of the jobs Dental and Laboratory Technicians perform. Give them tooth paste and ask them to bring needed material for cleaning teeth and gums.	NOTE: Ask student to bring a bar of soap and knife. Have them make different types of denture, teeth, or even a single tooth. 1. Obtain procilene metal and have students clean. 2. Draw a picture of the mouth showing the various teeth and label each. 3. Make denture out of modeling clay and have students smooth teeth and gum and polish. Use sandpaper and popsicle sticks for shaping teeth and gums.

SIMULATION FOR BUSINESS EDUCATION

CONCEPT	METHOD
I. Introduction to Unit	Give students a ditto list of clerical occupations.[1] (Students must save this sheet.)
A. Purpose of Study	Statement to class: We will explore many clerical occupations and you will experience many of the activities found in all of these office occupations.
B. Slide Presentation	Present a slide presentation of different types of clerical jobs. Statement to class as each slide is presented: 1) What do you see? 2) What type of office is this? 3) What type of position is being shown? 4) What type of activities do the persons in this position do?
Show individual slide 1. Typist *	Statement to class: All offices and businesses must have typists to do the production of letters and other correspondence, reports, and other typed materials.
2. Secretary *	Statement to class: Secretaries are found in many offices. They have the responsibility of keeping an office routine running smoothly. They answer phones, take messages, type letters, and make appointments.
3. Stenographer *	Statement to class: Stenogra-

CONCEPT	METHOD
	phers have the same duties which a secretary performs, however, she also has the skill of taking dictation either by shorthand or a recording machine such as a dictaphone.
4. File clerk *	Statement to class: File clerks have the responsibility of storing letters, reports, and other business papers through an orderly filing system.
5. Receptionist *	Statement to class: A receptionist acquires some responsibilities of a secretary such as typing and answering the telephone, but she must also constantly greet people and be personable to all.
6. Bookkeeper *	Statement to class: Bookkeepers are involved in receiving funds from people in such businesses as banks, credit unions, and loan agencies recording the monetary transactions needed in the contact of businesses.
7. Duplicating Machine operator *	Statement to class: Duplicator operators are semi-skilled people who are involved in setting up, adjusting, and operating reproducing machines found in businesses.
8. Data Processing Machine operator *	Statement to class: Key punch operators are a major occupation in this area. They must use machines similar to typewriters to punch IBM cards for computers.
9. Telephone operator *	Statement to class: These operators are found within businesses and for the public

CONCEPT	METHOD
	phone systems. These individuals operate telephone switchboards to incoming and interval calls to phones in a business and make connections with external lines for outgoing calls. Taking messages, supplying information to callers, and recording numbers of calls made and charges are frequently involved.
10. Shorthand Reporter *	Statement to class: There are four types of shorthand reporters. They are court reporters, hearing reporters, and general and free lanced reporters. Their job is to run a shorthand machine shown in the slide to report all that is said during a certain period.
III. Introduce typewriter - found in all clerical jobs.	Present typewriter to class. Teacher operates typewriter - shows: (1) Correct sitting position. (2) Concept of rhythm while typing. (3) Typing without watching keys.
A. Students experience manipulation and fingering used while typing.	Give students a ditto sheet of typewriter keyboard.
	Explain home row - where fingers stay at all times: a s d f j k l ;
	Students practice "pretend" typing of these letters on the ditto keyboard.

CONCEPT	METHOD
	Teacher calls out letters of home row.
	Teacher explains diagram of keyboard of which keys each finger is responsible to hit.
	NOTE: The teacher may develop this as far as she thinks time permits
IV. Introduce telephone procedure	Statement to class: The telephone is one of the most important tools of communication in the business office.
A. The importance of telephone procedure.	Statement to class: Effective use of the telephone is important because, when you use the business telephone, you are the voice of the business. In each conversation, you are creating an impression of your company through another "door" - your telephone.
B. The difference between face-to-face and voice to-voice conversations	Statement to class: Physical attributes which help to make good impressions when meeting face-to-face are absent in voice-to-voice meetings. What you say and how you say it determine the mental image formed by those you come in contact with.
	Question: How are face-to-face and voice-to-voice conversation different?
	Answer: Accept any good answer. Below are some suggested answers.

CONCEPT	METHOD		
		Face-to-face	Voice-to-voice
	1.	Smiles, gestures, appearances are apparent.	Impression of personality is made through hearing only.
	2.	Poise, interest, and sincerity can be observed.	Interpretation is based on what is said and tone of voice.
	3.	The effect of a pleasing voice and mode of expression is lessened by nervous gestures.	Voice and mode of expression have greater impact without physical distractions.
	4.	One is unlikely to refer to notes to insure discussion of all matters.	Notes and reference materials are easily used to aid the discussion.
C. Factors contributing to effective business calls.	5.	Listener's facial expressions help to indicate the degree of understanding.	Degree of understanding must be determined through verifying information.
1. Diction	Question: What factors contribute to the success of business calls? A. Give clear explanations. 1. Give clear explanations. 2. Avoid slang expression. 3. Use words which strangers to the company will understand. 4. Use expressions of courtesy; e.g., "thank you"; "please"		

CONCEPT	METHOD
	5. Use the person's name in the conversation to personalize the call.
2. Tone of Voice	B. Tone of Voice 1. Speak directly into the mouthpiece. 2. Use a normal conversational tone. 3. Speak distinctly and clearly. 4. Make your voice interesting by varying the tone.
3. A good "telephone personality"	Question: What qualities are present in a good "telephone personality" Answer: The following may be included in the answers: 1. Pleasantness 2. Friendliness 3. Interest 4. Sincerity 5. Helpfulness 6. Naturalness
4. Telephone courtesy	Statement to class: Telephone courtesy is simply an extension of the thoughtfulness which is practiced in everyday life.
a. How it is expressed	Question: How might telephone courtesy be expressed? Answers: Some suggested answers: 1. Answering the call pleasantly and promptly. 2. Using proper identification. 3. Stating clearly the purpose of the call. 4. Making inquiries tactfully. 5. Offering assistance and volunteering information.

CONCEPT	METHOD
	6. Giving undivided attention to the conversation. 7. Giving the reason and asking. 8. Getting the person's attention politely when returning to the line.
b. Consideration for others.	Statement to class: Show consideration for others by: 1. Avoiding unnecessarily long conversations 2. Showing consideration for other employees who may share the line with you. 3. Concluding the call properly and replacing the receiver gently.
D. Building realism	
1. Introducing the Teletrainer	The teletrainer consists of two activate telephones and a loudspeaker-control unit. It provides dial tone, ringing and busy signals. This "live" telephone equipment is an aid in creating realistic classroom situations for practice in developing conversational skills.
2. Using the teletrainer	Statement to class: The teletrainer is used to simulate the feel of real life situations in a business office. Students should face away from each other and the class, so that they are not distracted by expressions of others,businesses rely on voice-to-voice methods of conveying ideas and creating impressions

CONCEPT	METHOD
3. Role-playing	Pass out Handout sheet #2 to the class. Ask for two volunteers for the role-playing situations. Remind all students to keep in mind the four factors: (1) diction, (2) tone of voice (3) good telephone personality (4) telephone courtesy during the role-playing
4. Discussion on role-playing	Cover each of the four factors in discussing the success or lack of success of the role-playing situation. Question: How might this situation have been improved? Answer: Suggestions from the class.
NOTE: Complete lesson plans available (using the teletrainer) in Teletraining for Business Studies. American Telephone and Telegraph Company, 1965	NOTE: Material for using the teletrainer and the teletrainer are available to schools serviced by the Bell System. Have students take turns role-playing

HANDOUT SHEET #2 ROLE-PLAYING, USING THE TELETRAINER

Answering in an Unfamiliar Situation

By applying the basic principles of correct telephone usage, a new employee or someone in an unfamiliar situation can answer the telephone and can convey to the caller a good impression of the business.

Points to remember:

1. Be poised. (Don't panic!)
2. Use good judgement in giving information. (It may be necessary to explain to the caller why his call cannot be completed.)
3. Be sure that information given is correct. (Don't be afraid to say, I'm sorry. I don't have that information.)
4. Offer to take a message and/or call back with the information requested.

CAST: Telephone #1: Susan Collins - Typist, Mr. Martin's Office
Telephone #2: Mr. Charles Bailey - Chamber of Commerce Member

Situation:

Mary has been called into Mr. Martin's office to take dictation. Before leaving her desk, she asks Susan to answer all telephone calls. Mary explains that Mr. Martin does not like to be interrupted when he dictates and that he usually dictates for about an hour.

(Telephone #1 rings.)

Susan:	Mr. Martin's office, Miss Collins	Gives proper identification.
Mr. Bailey:	May I speak to Mr. Martin?	
Susan:	I'm sorry. Mr. Martin is dictating now. May I take a message?	Offers to take message.
Mr. Bailey:	This is Charles Bailey. I'd like to see Mr. Martin this afternoon. Do you know if he will be there?	

Susan:	No, sir, I don't. Mr. Martin's secretary, Miss Williams, is away from her desk now. May I have her call you?	Explains situation to be helpful to caller.
Mr. Bailey:	No thank you. I'd rather call Mr. Martin later this morning. Good-bye.	
Susan:	You're welcome. Good-bye.	Makes note of call for Mary to prepare her for return call.

CONCEPT	METHOD
Students experience many office procedures and activities of many clerical jobs.	Statement to class: Now that you have filled out the employment forms, taken tests, and had an interview, let's assume you have all obtained a job.
Students realize the time card importance and experience the routine of "punching a clock"	Students will then be given a ditto card. (See Appendix A - page 279) Each day of the C.E.P. class, the student should fill in the "time in" in the beginning and "time out" at the end.
Students realize payroll function in business.	At the end of each week, give the students their time card and let them figure out what their paycheck might be at a certain hourly wage. The teacher could also get a recent tax schedule for students to deduct from their total pay and then figure net pay.
Students experience bookkeeping of payroll.	The teacher can then assign a rotating group to set up salary schedule. Another rotating group to make out daily checks (found in Appendix A) to each student. Student experiences bookkeeping and bank clerk simplified skills and duties. Have another rotating group simulate a bank teller to cash checks. Giving them a certain sum at the beginning of the activity and let them deduct the total amount of checks each cashed and giving the net amount remaining for each teller.
Students become accustomed to sounds and noises occurring constantly in an office.	NOTE: Teacher should make a tape recording of an office. Sounds which should be recorded are: typewriters going close and background typewriters going; telephone ringing randomly throughout the tape; people talking, the office discussion;

CONCEPT	METHOD
	doors opening and closing; and machines operating such as adding machines, Xerox; duplicating, etc. This recording should be run throughout the following C.E.P. class periods to allow students to become accustomed to these sounds.
Students become aware of different sounds in an office.	Statement to class: What do you hear? Answer: Telephone ringing, typewriter, people talking.
Office procedures	NOTE: The following activities can be done by rotating groups of 3-5 students at different times of the class time: 1. paper shuffling 2. doors 3. machines Statement to class: What other sounds might you hear in an office? Answer: Open to class.
Students experience different menial activities performed by most clerical workers.	NOTE: The following activities can be given in any order and are interchanged. Teacher could integrate these activities so that each student may be doing one activity and interrupted by another activity to demonstrate no one is performed in sequence to another.
Students experience handling and assembling carbon packs.	Statement to class: Carbon paper is used in many clerical positions to reproduce something which is typed or written. Carbons are also found in packs in order to reproduce copies of forms which must be filled out such as supply form.

CONCEPT	METHOD
	NOTE: Teacher may be able to obtain such carbon packs forms from a local company in order to demonstrate what you are talking about.
Students understand how carbon works to reproduce a copy.	Statement to class: To assemble a carbon pack, you take one sheet of white paper down on desk...put carbon paper on top of this sheet with shiny side down...put another sheet of white paper on top. If you write on the top sheet, a copy will be made on the bottom sheet because the shiny side of the carbon is fading that sheet.
Students experience the handling and assembling of carbon pads and its reproduction process.	NOTE: Hand out two pieces of white carbon to each student.
Students understand how carbon works.	Statement to class: You can now assemble the carbon pack just like I showed you earlier. Now write on the top sheet the following supply list: 5 boxes -- #2 pencils 3 reams -- 20 lb. bond paper 2 boxes -- KO-REC-TYPE
	NOTE: Anything may be given for the student to write on the paper. You could even have the students draw lines and make a form.
Collating exercise to familiarize students with a frequent process performed in all clerical positions	NOTE: Take an old ditto test or report which has anywhere from 3 to 5 pages and make 30-100 copies. Let each student collate these pages and staple the assembled copies.
	Statement to class: Collating or assembling in order such items as letters, reports, or forms takes many hours of a working week.

CONCEPT	METHOD
	It's a process which most if not all clerical workers perform.
Introduce students to the type of machines found in offices or clerical positions.	NOTE: Develop slide presentation of many different types of machines which clerical workers may come in contact with. Example: 1) typewriter 2) adding -- electric 3) keypunch 4) teletype 5) bookkeeping machines 6) duplicating 7) xerox 8) photocopier 9) mimeograph 10) dictaphone
Students experience running an office machine.	NOTE: Bring a ditto machine into the classroom. Give each student a ditto sheet. Statement to class: This is a process used to reproduce. The ink on the back sheet of the ditto is transferred to the back of the white sheet by pressure either from a typewriter key or a penci NOTE: Fill machine with fluid. Statement to class: The fluid transfer only the ink on the back of the white sheet to the copy paper when this paper is run through the roller in the machin NOTE: Demonstrate this operation. NOTE: Each student can then write perhaps the list of machines found in clerical offices on this ditto.

CONCEPT	METHOD
	Let each student run-off at least three copies of his ditto. This activity can be rotated in order to interrupt another activity the student is performing. Another exercise could be to bring an adding machine to the class. The teacher may demonstrate how the machine adds, subtracts, multiplies and divides.
Students realize the importance of budgeting while working.	Give students a simple budget problem for them to figure on the machine. EXAMPLE: You make $400 a month salary for your clerical job. Your rent is $75 a month. You have car payments of $60 a month. Your groceries and utilities amount to $10 a month. Student could subtract the tax for that salary to get net pay. Add total expenses. Subtract to determine how much spending money they may have.
Students become acquainted with filing procedures.	NOTE: Take ditto sheets and divide into six blocks to reassemble file codes. In each block put company name, state, or persons names for alphabetical filing. Also put an account number in last block for numeric filing. Duplicate enough copies for each student. Cut these blocks so that each student can work with 50 to 100 file cards. Statement to class: In all clerical positions, filing is a major process of storing and retaining many business papers. One type of filing system is alphabetical. File these cards in alphabetical order by the first name of the company, last name of individual, etc

CONCEPT	METHOD
	NOTE: Teacher could supervise this process the first time it is performed. Have another group file by account number. The activity can also be interrupted with other activities mentioned earlier EXAMPLE: Have the tape recording going Begin filing; everytime you hear the phone ringing on the tape, pretend you have a phon on your desk and answer the phone using the techniques yo experienced earlier.
Students experience the importance of proofreading.	NOTE: Give each student the business letter which has been typed with many spelling and punctuation errors. Have them correct the letter. Statement to class: Many clerical jobs such as secretary, stenographer, and clerk typist include many experiences. Proofreading their own work or other's work. NOTE: The same activity can be done on a simple ledger sheet with error in adding.
Students compare simple business request letters.	NOTE: Have students write a letter ordering business stationery for their C.E.P. class. Have them order a certain amount of this stationery giving the type of top border they want. Statement to class: Write a letter to the Apex Paper Company ordering us much business stationery. (Show a sheet of school stationery so they will know what this type of letterhead looks like

CONCEPT	METHOD
	You can order as many as you want. Remember stationery comes in packs called "reams" which contains 500 sheets of paper.
	Statement to class: Make up your own border, a picture (description of) or wording in the letter.
	Here is the address to write to:
	Mr. John Smith Apex Paper Company 449 Main Street New York, NY 44210
	NOTE: Have a diagram in front of class or on ditto showing business letters form.
VII. Introduce wage payment	Statement to class: Initially, most people go to work to earn money. Just satisfaction usually comes later.
A. The importance of computing wage payment	Question: Why is it important to know how much you earn?
	Answer: Answers may vary. Here are some suggested answers. (List on board)
1. Whether you have been paid correctly.	1. To know whether you have been paid the correct amount.
2. How much you will have to spend.	2. To know approximately how much you will have to spend.
B. Two methods of payment	Statement to class: There are two methods of payment; salary and hourly.
1. Salary	Question: Can you explain the difference between the two?
2. Hourly rate	

CONCEPT	METHOD

Answer: Employees on salary are paid a specified amount each month. Employee on hourly rate are paid a specified amount for each hour they work.

C. Computing wage payment

1. Straight time

Statement to class: "Let's look at a problem based on hourly rate" (put on board)

If Sally works at a part-time job that pays $1.60 per hour, four hours a day, and five days a week, the total amount she earns (gross pay) is:

$1.60	per hour
x 4	hours per day
$6.40	per day
x 5	days per week
$32.00	gross pay per week

2. Overtime

Pass out Handout Sheet # 1. Have students work problem #1.

Answer to problem #1 is $39.60 per wee

Statement to class: Many companies pa time and a half for all hours over 40. The hourly rate for all hours over 40 is found by multiplying the hours by 1.5. (Example put on board)

$1.60	straight time rate
x 1.5	
$2.40	half time hourly rate

Have students work problem #2 on Hand Sheet #1.

Answer to Problem #2:

$1.80	$1.80	
x 1.5	x 40	
$2.70	72.00	straight ti
x 4	+10.80	overtime
$10.80	82.80	total wages

D. Gross and Net payment

HANDOUT SHEET #1

1. Harry is paid $1.65 per hour and works six hours per day, four days a week. What is his gross pay.

2. During vacation John works full time. Figure his gross pay if he works 44 hours per week @ $1.80 per hour.

3. Find Susan's adjusted gross if her total gross is $87.59, and she claims one exemption. (herself)

4. Paul earns $47.50 per week, and claims one exemption. (himself) Find the withholding tax deducted from his pay.

5. Pat earns $37.49 per week. Find the amount of FICA tax deducted from her pay.

6. Find the amount of City Income Tax Betty will pay if her gross is $53.79 per week.

7. Henry's gross pay each week is $58.27. He claims one exemption. (himself) Find his net pay after taxes.

Miscellaneous Simulation Activities

These may be incorporated in a subject area wherever it is practical.

CONCEPT	METHOD
Speed, accuracy, neatness, verbal directions, flexibility, frustration, repetitive.	Flannel board 3' x 4'. Place 1" x 4" yellow flannel strips on the pre-marked flannel (sand paper) board. Instructions should be changed at an indiscriminate time, without notice. Move flannel strips over one-third then one-half, etc.
Human relations, manipulative, speed, frustration, math, verbal and written instructions, repetitive, creative, writing, listening, endurance, reading, math.	Four pegboards, nuts, washers, bolts, and angles. One student inserts bolts, second puts on angles, third puts on washers and last one puts on nut and tightens. The students will build a square unit. Students make individual and group comparisons. Cost of assembly could also be computed.
Speaking, listening, reading, writing, human relations, flexibility, frustration, logic.	Set up a regular court procedure.
Human relations, honesty, math, form and color perception, endurance, frustration, logic, reasoning, decision making, speaking, adaptability, flexibility, memory, follow directions and rules.	Play a card game with the students keeping score. Monopoly or other type of game.
Manipulative, mechanical, repetitive, muscular, working alone.	Construct a room using screens which would allow the light of a projector to emit. The student must thread and rewind the movie in this isolated booth.
Human relations, speaking, writing, listening, follow directions.	Telephone usage. One student orders an item - giving description over the phone.
Odor, heat manual dexterity, endurance, repetitive.	Mold for plastics. Heat is turned up to produce odor (burn). Use heat lamp to simulate intense heat condition.
Human relations, team work, manipulative, endurance, speed, listening, perceptions, adaptability, math.	Sports activities. Softball game 3 days. One person acts as statistician recording data from all games. Each player computes his batting average.

CONCEPT	METHOD
Manipulation, depth perception.	Make a box with one stationary object and two movable objects. Must line two movable objects with fixed object.
Fine dexterity, frustration, working alone, repetitive, decision making, endurance.	Construct a square using 3" copper wire which must be soldered
Perception, math	Draw three lines on three separate sheets of paper. Ask student to decide which line is longest.
Wroking alone, working in subdued light, manual dexterity.	Student wears dark goggles. Student takes a number of different sized blocks and must assembly them in a box. Area could be very warm or very cold.
Working alone, confined area, manual dexterity, tactile perception, foul air.	Build a long maze with the working end of the maze as far distant as possible from the rest of the class. A light switch would be provided at the working end. Student must assemble different sized blocks in a box.
Listening, recording, adaptability, frustration.	Use a head-set for each student. Teacher reads a random set of letters and numbers.
Working at great height, working alone, manipulative.	Construct a small room about 4 foot off the ground. Board about 4" or 6" wide runs the entire length of the room. Plastic sheets, 3" longer than board cover a photograph which gives feeling of height. Student goes to a panel and changes screwtype fuses.
Height, working alone.	Telephone pole. Student climbs pole wearing spurs and is also wearing a harness. Also wears safety strap. At top of pole he screws three nuts and

CONCEPT	METHOD
	bolts together.
Patience, adaptability, endurance, sedentary.	Simulate driving a taxi. Two persons: driver and passenger. Passenger aggrevates the driver.
Hand and eye coordination, manipulation.	TV camera. Student must focus on the various speakers.
9th grade - math. Balancing out, coupons, checks, manipulation, logic, addition, subtraction, Algebra, bookkeeping, charge accounts, human relations.	Unit on cashiering and money handling. Expose students to the mathematical concepts related to cashiering and money handling. Cash register and simulated money. Familiarization of cash register; a controlled device in relation to audit and inventory. Coupons, bottle returns, etc. Money handling and change making.
Finger and hand dexterity	Draw 12 circles - in rows of four each. Number 1-12 and have students place finger on the number called out.
Math	Cost of garage. Cost of materials. Percent of total cost. Hourly rate 40 hours and $8.12 + percent of materials ($1000.00) 8% mark-up. Actual cost of materials, hourly rate, percent of materials.
Math, fine manipulation.	Teacher bags washers the size of pennies or dimes. The count should range between 140-160, but none should be 150. The student is given coin wrappers and he must sign his wrapper and fill with the correct number of washers. Teacher knows the count because of the number given each student.
Perception, written, math.	Accident. Teacher would simulate this between two parties. Measurements of speed and all details would be involved.

CONCEPT	METHOD
Human relations, decision making, frustration, speaking, patience.	Confrontation between two students. Merchandise is being returned because it is ineffective. May or may not contact manager to make the adjustment.

APPENDIX G

Selected Bibliography

APPENDIX I

CAREER EXPLORATION

SELECTED BIBLIOGRAPHY

Altman, James W. What Kinds of Occupational Information Do Students Need. Conference on Occupational Information and Vocational Guidance. Pittsburgh (March 11-13, 1966) 11 pages. Available in ERIC abstract, paper copy or microfiche form: ED 018580.

Amelio, Anthony. "Competencies Needed by Beginning Bookkeeping Workers According to Public Accountants." Journal of Business Education 44: 230-42 Mr

Baer, Max F., and Roeber, Edward C. Occupational Information: The Dynamics of Its Nature and Use. Chicago: Science Research Associates, Inc., 1964.

Beard, H. G., seminar chairman. National Vocational-Technical Education Seminar on Occupational Mobility and Migration, Center for Occupational Education, North Carolina State University at Raleigh, Report No. 2, 1966.

Bottoms, Gene & Matheny, Kenneth B. "Occupational guidance, counseling, and job placement for Junior High and Secondary School Youth." Paper presented at the National Conference on Exemplary Programs & Projects in Vocational Education, Atlanta, Georgia, March, 1969.

Barbula, P. M. and Isaac, Stephen W. Career Simulation for Adolescent Pupils, Final Report. San Diego County Department of Education. San Diego, California: 1967. 48p. Available in ERIC abstract, paper copy or microfilm: ED 016268.

Betz, Robert L., Engle, Kenneth B. and Mallison, George G. "Perceptions of Non-College-Bound Vocationally Oriented High School Graduates." Personnel and Guidance Journal Vol. 47: No. 10: Washington, D. C., June, 1969.

Boynton, Ralph E. New Models and Techniques in Career Guidance. Pittsburgh: Pittsburgh University, 1966. 10p. Available in ERIC abstract, paper copy or microfiche form. ED 012936.

Brainerd, Carol P. Job Mobility and Occupational Change, Industrial Research Unit, Department of Industry, Wharton School, University of Pennsylvania, 1966.

Brayfield, A. H. and Crites, Jo. O. Research on Vocational Guidance: and Prospect. In H. Borow (ed.) *Man in a World of Work*, Boston: Houghton Mifflin, 1964.

Burchinal, Lee G. et al. *Career Choices of Rural Youth in a Changing Society*. University of Minnesota, Agricultural Experimentation Station, Minneapolis: 1962. 34p available in ERIC abstract, paper copy or microfiche form: ED 012639.

Burg, Mary Grace, "Opportunities for Employment in Entry Occupations in Selected Business Offices in the Cincinnati Area" Catholic University of America, M. A. thesis '68; N Bus. Ed. Quarterly 28:43, Fall.

Calvert, Robert, and Steele, John E. *Planning Your Career*. New York: McGraw-Hill Book Company, Inc., 1963.

Campbell, R. E., et. al., *The Systems Approach: An Emerging Behavioral Model for Career Guidance*. Columbus, 1971. Center for Vocational Education, The Ohio State University.

Career Opportunities. New York: New York Life Insurance Company, 1958.

Clow, John E. "A Study of the Duties and Qualifications of Bookkeepers and Accountants in Manufacturing Firms in the DeKalk-Sycamore, Illinois, area. Northern Illinois University, M.S. thesis '68.

Cogswell, John F. and Estevan, D. P. *Explorations in Computer-Assisted Counseling*. Document TM-2583/000/11. Santa Monica, Calif: System Development Corporation, 1965.

Coleman, James C. Equality of Educational Opportunity. Washington: Government Printing Office, 1967.

Creech, D. D. "Forward", A Guide for Developmental Vocational Guidance Grades K-12. Department of Education, Oklahoma City, Oklahoma: 1968. 161p.

Dictionary of Occupational Titles. Washington, D. C.: U. S. Department of Labor, 1966.

Duncan, Otis Dudley. "The Trend of Occupational Mobility in the United States," *American Sociological Review*. August, 1965.

Duncan, Otis Dudley and Hodge, Robert. "Education and Occupational Mobility: A Regression Analysis," *American Sociological Review*, May, 1963.

"Education and Employment of Technicians" Edited by David C. Rjorkquist. Project No. 5-0095, Contract No. 4-10-108, March, 1968, U. S. Department of HEW.

Flanagan, John C. "Stability of Career Plans" In Flanagan, John C. & Cooley, William W. Project Talent One Year Follow-Up Studies. Cooperative Research Project No. 2333. University of Pittsburgh Press, 1966.

Gardiner, Glenn L. How You Can Get the Job You Want. Harper and Row, 1962.

Gillespie, Karen R. "Challenging Careers in Retailing." Journal of Business Education 44: 339 May.

Goodman, Shirley. "Careers in Fashion." Journal of Business Education 44: 207 February.

Gotzemier, Carol Ann. "Requirements and Opportunities for Beginning Employees." Review 20: 13016 Summer.

Gribbons, Warren D. & Lohnes, Paul R. "Predicting Five Years of Development in Adolescents from Readiness for Vocational Planning Scale." Journal of Educational Psychology, 1965, 56, 244-53.

Grossman, Daniel. "Careers in Data Processing" Compass 33: 10-11 July.

Guidance Publications in Print, Volume 2, California: Los Altos, Associated Publishers, Guidance Publications Center, 1967-68.

Havinghurst, Robert. Youth in Exploration and Man Emergent. In Borow, Henry, (Ed.) Man in a World of Work. Boston: Houghton Mifflin, 1964.

Hendricks, Jay Dee. Office Job Opportunities for High School Graduates in the Victorville, California, Business Community. M.S. thesis '68; National Business Education Quarterly 28: 16 Fall.

Holland, J. L. Major Problems of Research on Vocational Behavior. In H. Borow (Ed.) Man in A World of Work. Boston: Houghton Mifflin, 1964.

Hollister, Robinson G. "The Economics of Manpower Forecasting" International Labour Review, April, 1964.

Hoppock, R. Occupational Information. New York: McGraw-Hill, 1957.

Hoppick, R. Occupational Information. New York: McGraw-Hill, 1963

Huffman, Harry and others. "Structure of the Taxonomy of Office Activities." *National Business Education Association Yearbook* 7: 249-55.

Hunter, Emma Betty T. "Business Skills Are Needed in the U. S. Army", *Business Education Journal* 45: 65-66 November.

Hunter, Lawrence C. and Reid, Graham L. *Urban Worker Mobility.* Organization for Economic Cooperation and Development, Paris, 1968.

Johnson, Harris G. "Opportunities for the Male High School Business Course Student in the Railroad Industry Today." *Business Education Observer* 40: 45-46, Winter.

Jordaan, J. P. *Exploratory Behavior: The Formation of Self and Occupational Concepts.* In D. E. Super et al. (Eds.) Career Development Self-Concept Theory. New York: College Entrance Examination Board, 1963.

Katz, Martin, *You: Today and Tomorrow.* Princeton: Cooperative Test Division, Educational Testing Service, 1957.

Kitson, H. D. Creating Vocational Interest. *Occupations.* 1942, 20, 567-571.

Kobe, John R. "Worker Characteristics of Machine Shop Employees." University of Minnesota, M.A. thesis '68; *N Bus Ed* Q 28: 20-21 Fall.

Krumboltz, J. D. Vocational Problem-Solving Experiences for Stimulating Career Exploration and Interest. Report of Project OE 5-85-059. Submitted to the U. S. Commissioner of Education under the Provisions of Section 4(c) of the Vocational Education Act of 1963, 1967 (a).

Krumboltz, J. D. Vocational Problem-Solving Experiences for Stimulating Career Exploration and Interest. Report of Project OE G 4-7-07011-2890, Phase II. Submitted to the U. S. Commissioner of Education under the Provisions of Section 4(c) of the Vocational Education Act of 1963, 1967 (b).

Krumboltz, J. D. and Bergland, B. *Police Officer Kit.* Stanford, California School of Education, Stanford University, 1967.

Krumboltz, J. D., Hamilton, J. A., and Southern, M. *Electronic-Technician Kit.* Stanford, Calif.: School of Education, Stanford University, 1967.

Krumboltz, J. D. and Johnson, R. G. *Medical Laboratory Technologist Kit.* Stanford, Calif.: School of Education, Stanford University, 1966 (a).

Krumboltz, J. D. and Baker, R. D. *Sales Development Kit.* Stanford, Calif.: School of Education, Stanford University, 1967.

Krumboltz, J. D. and Nelson, D. E. *Appliance Serviceman Kit.* Stanford, Calif: School of Education, Stanford University, 1967.

Krumboltz, John D. & Schroeder, W. W. "Promoting Career Exploration Through Reinforcement." *Personnel & Guidance Journal*, 1965, 44, 19-26.

Krumboltz, J. D. and Sheppard, L. E. *Accountant's Kit.* Stanford Calif.: School of Education, Stanford University, 1965.

Lansing, John B. and Mueller, Eva. *The Geographic Mobility of Labor.* Institute for Social Research, Survey Research Center, The University of Michigan, 1967.

Leonard, George E. "Vocational Planning and Career Behavior; A Report on the Developmental Career Guidance Project." *Educational Technology*. March, 1969.

Leonard, George E. *Developmental Career Guidance in Action, the First Year*. Wayne State University, Detroit, Michigan: n.d. 156p. Available in ERIC abstract, paper copy and microfiche form: ED 013456.

Lindseth, Mary. *A Study to Determine the Clerical Positions, Their Duties and Requirements Available to People With a High School Education or Less*. Wisconsin State University at Eau Claire, M.S.T. thesis '68.

Macgibbon, Elizabeth Gregg. *Fitting Yourself for Business* McGraw-Hill, 1961.

March, Georgianna B., ed. "Occupational Data Requirements for Educational Planning," Center for Studies in Vocational and Technical Education, University of Wisconsin, 1966.

Martin, Ann M. *A Multimedia Approach to Communicating Occupations Information to Noncollege Youth*. Interim Technical Report. University of Pittsburgh, Graduate School of Library and Information Science, Pittsburgh: 1967. 206p. Available in ERIC abstract, paper copy and microfiche form: ED 017005.

Mezzano, Joseph. "A Survey of the Teaching of Occupations" *Vocational Guidance Quarterly*. Volume 17, (June, 1969) p. 275.

"Mobility and Worker Adaption to Economic Change in the United States," Manpower Research Bulletin No. 1, Revised July, 1063.

Murphy, James M., Handbook of Job Facts. Science Research Associates, 1963.

Occupational Guide. Sacremento, Calif.: State of Calif., Department of Labor.

Occupational Outlook Handbook. Washington, D. C.: U. S. Department of Labor, 1966.

Oklahoma Department of Education, Guidance and Counseling Division. A Guide for Developmental Vocational Guidance, Grades K-12. Department of Education, Oklahoma City. Oklahoma: 1968, 161p.

Oregon State Department of Education, Division of Community Colleges and Vocational Education. Guide to Structure and Agriculation of Occupational Education Programs (Grades 7-12 and Post-high school), 1967.

Paddock, Harriet L. "Personnel Needs for High-level Secretarial Positions." Delta Pi Epsilon Journal 11: 17-22 February.

Paradis, Adrian Alexis. You and the Next Decade. McKay, 1965.

Piore, Michael J. "On-the-Job Training and Adjustment to Technological Changes," The Journal of Human Resources, Fall, 1968.

"The Return to Geographic Mobility: A Symposium" The Journal of Human Resources, Fall, 1967.

Rhodes, James A., Vocational Education and Guidance, A System for the Seventies, Merrill, 1970, Columbus.

Roe, A. The Psychology of Occupations. New York: Wiley and Sons, 1956.

Roe, A. The Psychology of Personality Structure and Occupational Behavior. In H. Borow (Ed.) Man in a World of Work. Boston: Houghton Mifflin, 1964.

Ryan, T. A. "Effect of an Integrated Instructional Counseling Program to Improve Vocational Decision-Making of the Community College Youth." Cooperative Research Project No. HRD 413-65-5-0154 Corvallis: Oregon State University February 1968.

Saben, Samuel. "Occupational Mobility of Employed Workers," Special Labor Force Report #84, Bureau of Labor Statistics, Reprint #2531, Washington, D. C., USGPO, 1967.

Samler, J. "Occupational Exploration in Counseling: A Proposed Reorientation." In H. Borow (Ed.) Man in a World of Work. Boston: Houghton Mifflin, 1964.

Sheppard, Harold L. "Promoting Job Finding Success for the Unemployed." W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, April, 1968.

Sheppard, L. E. "Effects of a Problem-Solving Procedure for Stimulating Vocational Exploration. Unpublished doctoral dissertation. Stanford, Calif.: Stanford University Press, 1967.

Slocum, W. L. Occupational Careers in Organizations: A Sociological Perspective. Personnel and Guidance Journal, 1965, 43, 858-866.

Somers, Gerald G. "The Response of Vocational Education to Labor Market Changes," The Journal of Human Resources, Supplement.

Sparks, Mavis C. "What We Should Teach About Careers in Business and Office Occupations." Business Education World 49: 12-13 29 May.

Splaver, Sarah. Your Career If You're Not Going to College. Messner, 63.

Stanton, William A., "Middle School Years and Career Development," The Clearing House, 44:9, (May, 1970), 531-33.

Strong, E. K. Vocational Interests of Men and Women. Stanford, Calif. Stanford University Press, 1943.

Stubbe, Connie C. A Survey of Employees in the Area Served by Workman High School to Determine Clerical Skills Needed by High School Graduates in First-Level Entry Occupations. California State College at Los Angeles, M.S. thesis '68.

Super, D. E., Starishevsky, R., Marlin, N., and Jordaan, J. P. Career Development: Self-Concept Theory. New York: College Entrance Examination Board, 1963.

Super, Conald E. The Psychology of Careers. New York: Harper & Row, 1957.

Tiedman, D. V. and O'Hara, R. P. Career Development: Choice and Adjustment. New York: College Entrance Examination Board, 1963.

Unites States Department of Labor. Occupational Outlook Handbook. U. S. Government Printing Office, 1966-67. Edition.

Varenhorst, Barbara. The Life Career Game: Practice in Decision-Making. Simulation Games in Learning. Beverly Hills, California, Sage, 1968.

Williams, Louise E. A Career in Court Reporting. Business Education Observer, 40: 67-71 Spring, 1969.

Winefordner, David W. et al. Suggested Model for the Full-time Counselor Who Conducts and Coordinates an Exploratory Program in Grades 7-9. Carrollton, Ga.: Conference at West Georgia College (August 18-23, 1968), n.p.

Wirtz, W. Willard. Job Guide for Young Workers. Washington: U. S. Government Printing Office, 1963-64.

Wirtz, W. Willard. Occupational Outlook Handbook. Washington: U. S. Government Printing Office, 1966-67.

Witczak, Lois A. & Ehlers, Dorothy. "Project: Occupational Orientation." The School Counselor. May, 1970, pp. 362-363.

Wrenn, C. G. Vocational Choice Theory - An Editorial Comment. Journal of Counseling Psychology, 1959, 6, 94.

Yunker, John A. Pre-High School Vocational Group Guidance for Potential Dropouts and Non-College-Bound Students. Tracy, California: 1967. Tracy Elementary School District, 37p. Available in ERIC abstract, paper copy or microfiche form: ED 012944.

Note: All publications related to business education were taken from the Business Education Index, 1969.

ONE OF THE MOST COMPLETE SOURCES RELATING TO BOOKS OF ADDITIONAL INFORMATION ON CAREER EXPLORATION IS THE ENCYCLOPEDIA OF CAREERS AND VOCATIONAL GUIDANCE, Volume 1, Doubleday and Company, Garden City, New York, 1967.